Title Sheet Site Overview Typical Sections

4-9 Plan Sheets Drive and Retaining Wall Details

NOTE:

thereto.

<u>LEGEND</u>

—— OHE———

Curb Ramps

The information shown on this drawing concerning type and

location of underground utilities is not guaranteed to be accurate or all inclusive. The contractor is responsible for

contacting all utility companies for field location of all underground utility lines prior to any excavation and for making his own verification as to the type and location of

ROCK EXCAVATION

RETAINING WALL

COMMON EXCAVATION

SIDEWALK CONSTRUCTION (4")

CURB AND GUTTER COMBINED

DETECTABLE WARNING SURFACE

EXISTING TELEPHONE PEDESTAL

EXISTING SANITARY SEWER MANHOLE

EXISTING UNDERGROUND TELEPHONE

PROWAG (Draft 2011)

EXISTING FIRE HYDRANT

EXISTING WATER VALVE

EXISTING WATER METER

EXISTING STREET SIGN

EXISTING GAS METER

EXISTING MAILBOX

EXISTING TREE

EXISTING BUSH

EXISTING POWER POLE

EXISTING FIBER OPTIC

SURVEY BENCHMARK

EXISTING OVERHEAD ELECTRIC

EXISTING UNDERGROUND GAS

EXISTING CITY WATER LINE

SURVEY CONTROL POINT

SIDEWALK/DRIVEWAY CONSTRUCTION (6")

underground utilities as ma be necessary to avoid damage

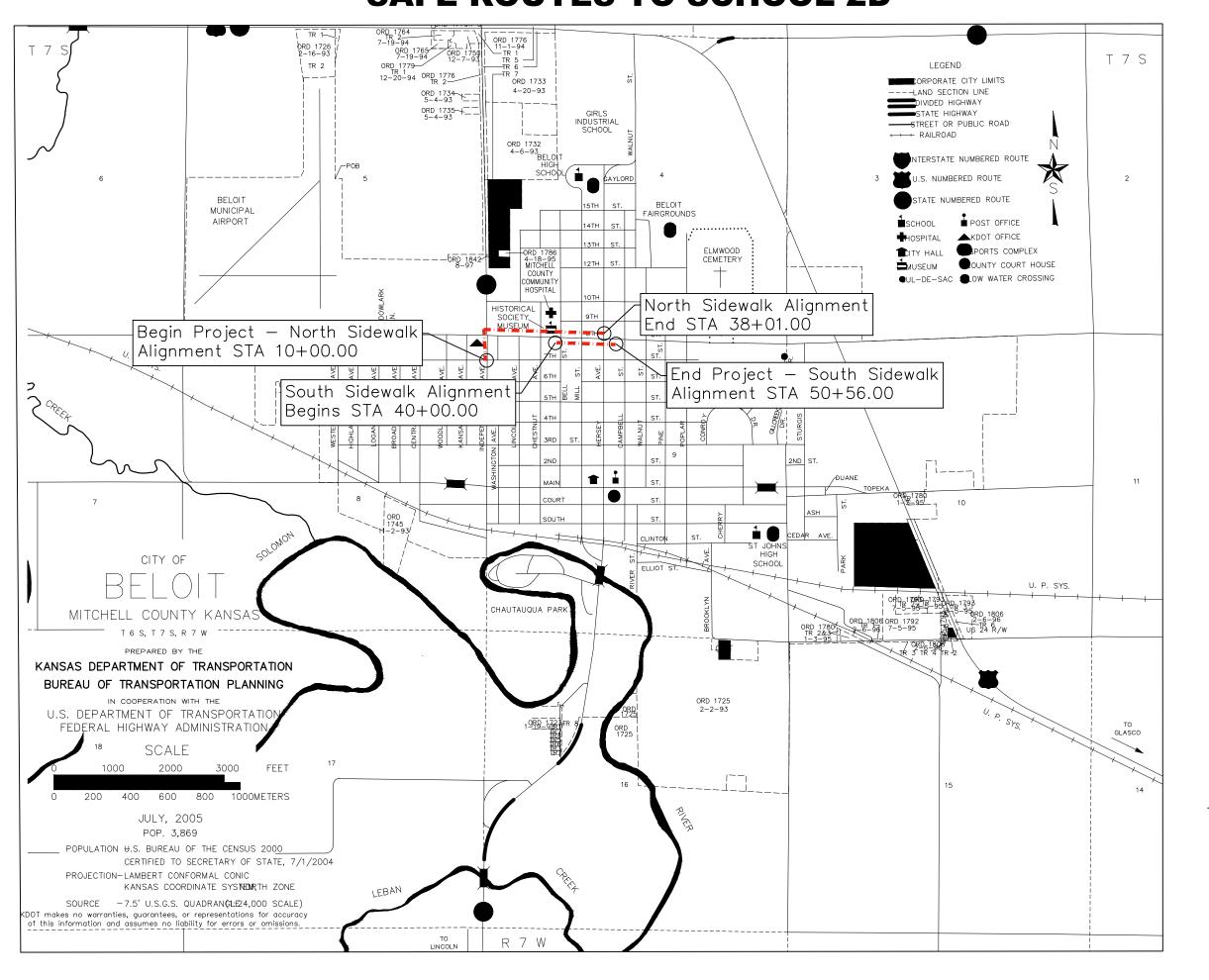
11—12 Ramp Details 13-15 Road Details

16 Summary of Quantities 17—24 Landscape Details and Quantities 25-31 Traffic Control Details and Quantities **STATE OF KANSAS** 

# DEPARTMENT OF TRANSPORTATION DEMOLITION AND CONSTRUCTION PLANS

62 U-2330-03

## **MITCHELL COUNTY** FEDERAL AID PROJECT **CITY OF BELOIT SAFE ROUTES TO SCHOOL 2D**



#### LOCATION MAP

## GRADING CONCRETE SIDEWALK SEEDING

STATE

KANSAS

PROJECT NO.

62 U-2330-03

TA-U233(003)

Traffic to be carried through construction.

YEAR | SHEET NO.

2021

#### OWNER CONTACT INFORMATION

City of Beloit, Kansas Jason Rabe, City Administrator Beloit City Hall 119 N Hersey P.O. Box 567 Beloit, KS 67420 Telephone: (785) 738-3551

#### UTILITY & EMERGENCY CONTACT INFORMATION

POLICE	9-1-1 Non-Emergency: (785) 738-2203 Beloit Police Department	ELECTRIC	CITY OF BELOIT Steve Krier 502 E 12th Street Beloit, KS 67420 (785) 738-7468
FIRE	9—1—1 Non—Emergency: (785) 738—5088 Beloit Fire Department	TELEPHONE	AT&T Patti Krebaum 101 E 2nd Room 211 Hutchinson, KS 67501
AMBULANCE	9—1—1 Non—Emergency: (785) 738—6437 Mitchell County EMS	WATER	(620) 665—1939  CITY OF BELOIT  Jim Bentz  502 E 12th Street  Beloit, KS 67420  (785) 738—3781
		CABLE TELEVISION	CUNNINGHAM TELEPHONE 110 W Main St. Beloit, KS 67420 (785) 534-1111
SE BENEDING		GAS	KANSAS GAS SERVICE Brenda Collins 701 W 8th Street Beloit, KS 67420 (785) 738-9700



(/00) /38-9/00

#### DESIGN DESIGNATION

Independence and 8th Residential Street Functional Classification Pedestrian Sidewalk Design Criteria Pedestrian Facilities and the Americans with Disabilities Act Sidewalk Width 5 FT, varies at tie—in sections Match Roadway Grade

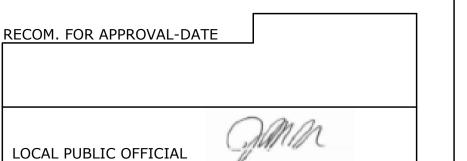
Mitchell County LOCATION MAP

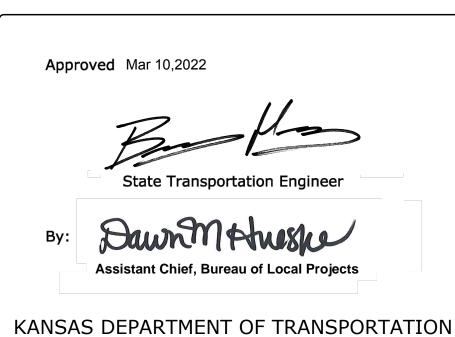
ENTIRE PROJECT IN: T7S, R7W, S4,8,9

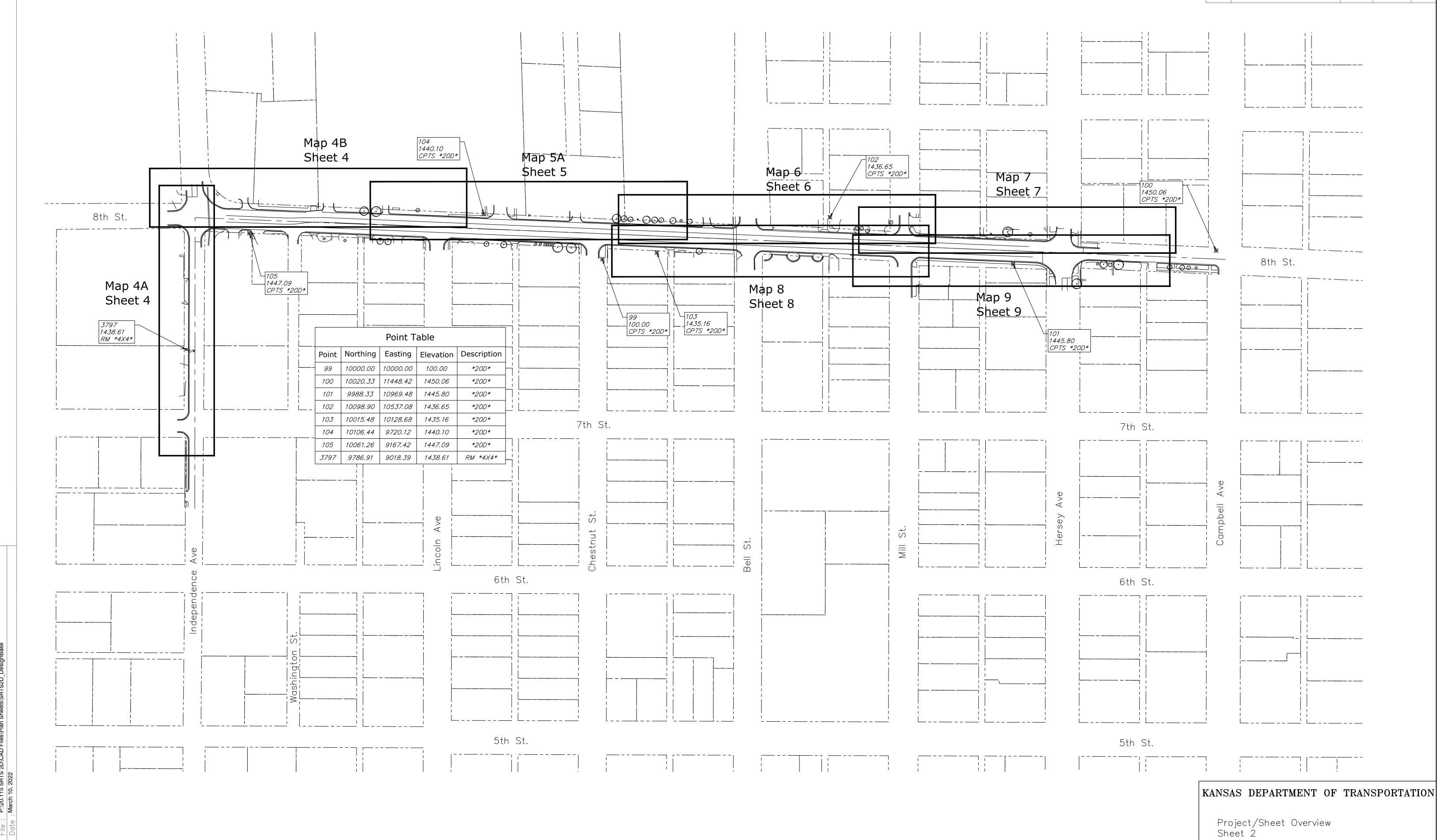
**GROSS LENGTH OF PROJECT** 2825 FT. 0 FT. **EXCEPTIONS ADDITIONS** 0 FT. **NET LENGTH OF PROJECT** 0.53 MILES NET LENGTH OF BRIDGES MILES FT. NET LENGTH OF ROAD MILES

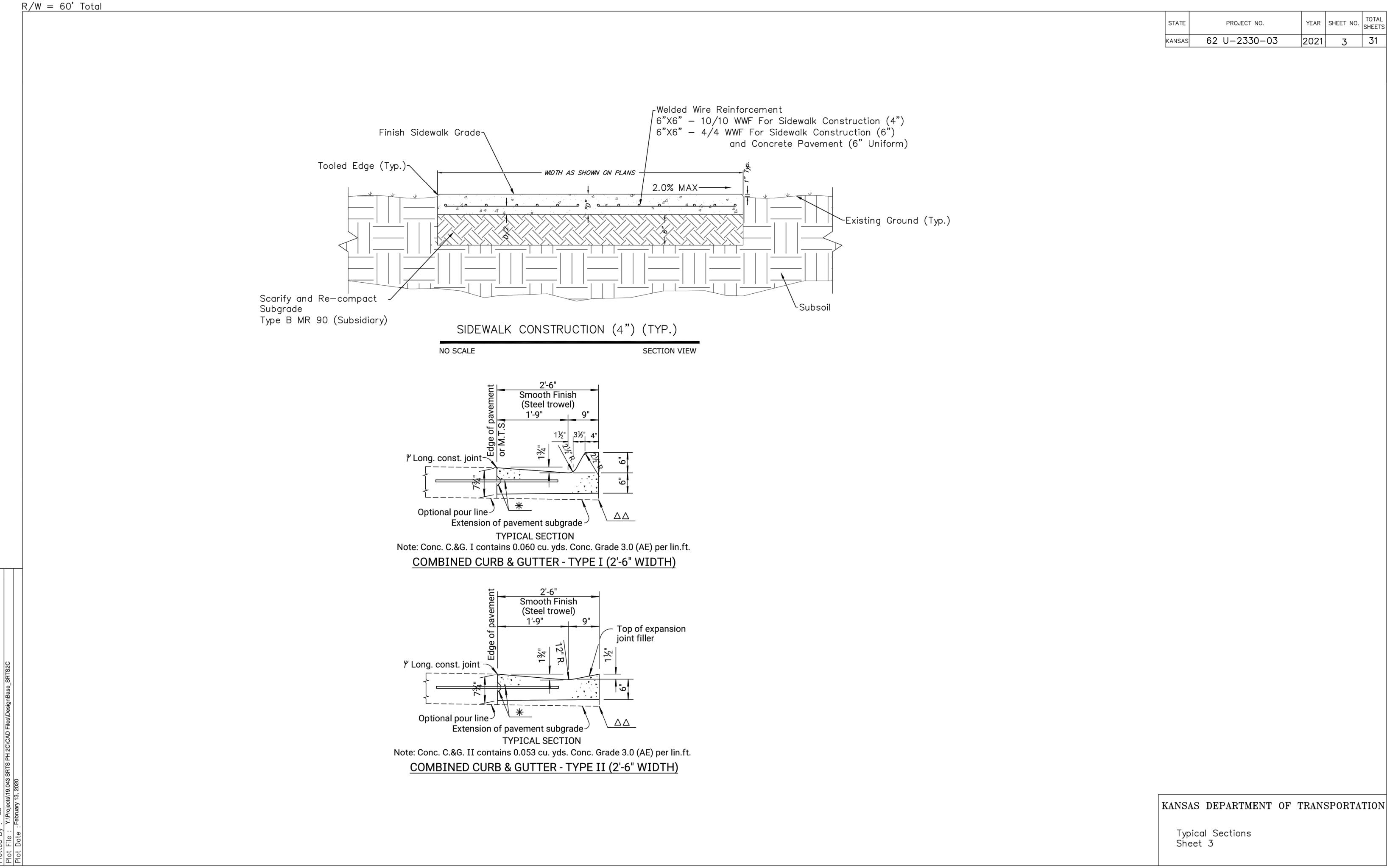


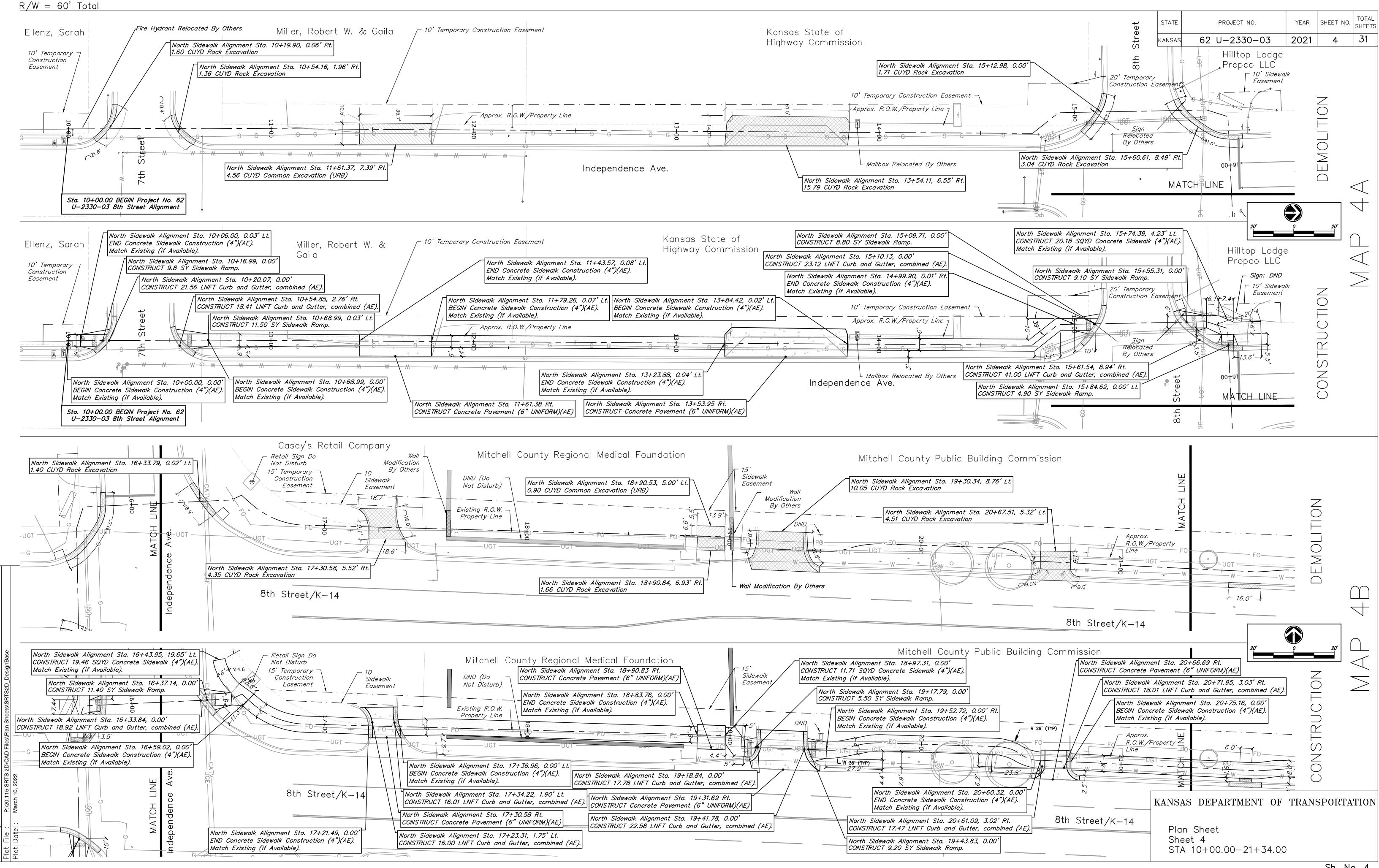
CIVIL ENGINEERS | LAND SURVEYORS | LANDSCAPE ARCHITECTS 1125 GARDEN WAY | MANHATTAN, KANSAS | P. 785.539.4687 101 S. Mill Street | BELOIT, KANSAS | P. 785.738.2725

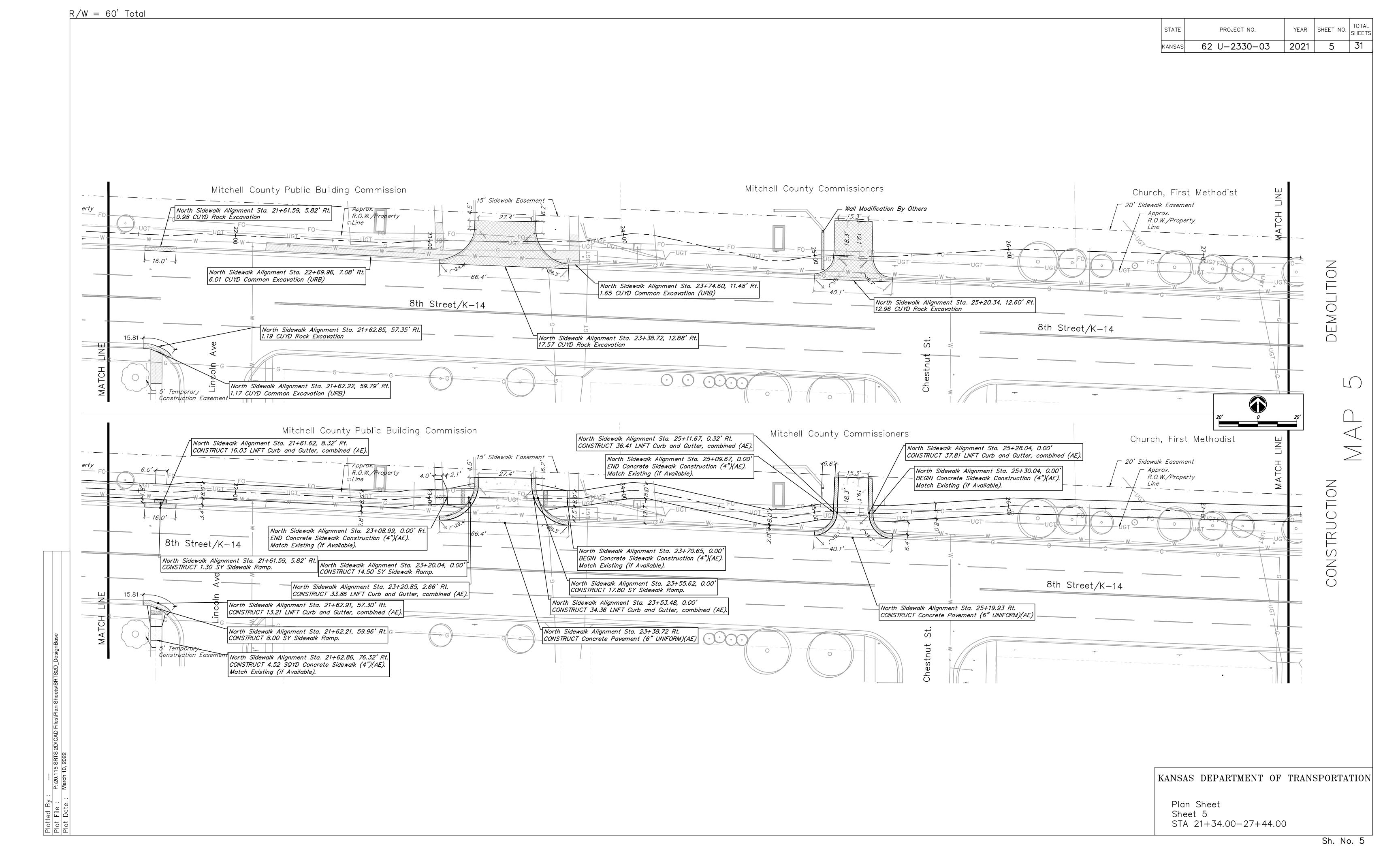


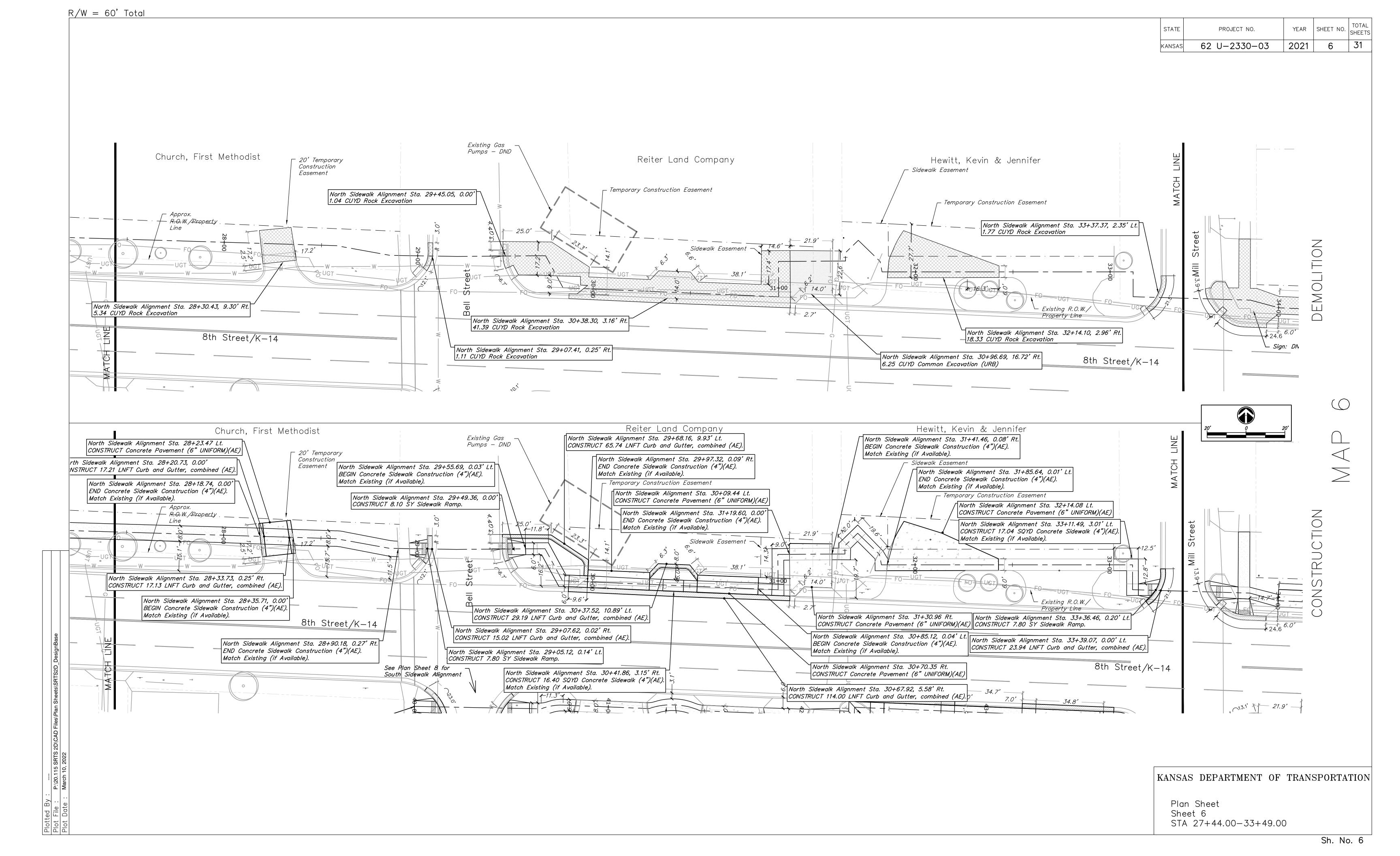


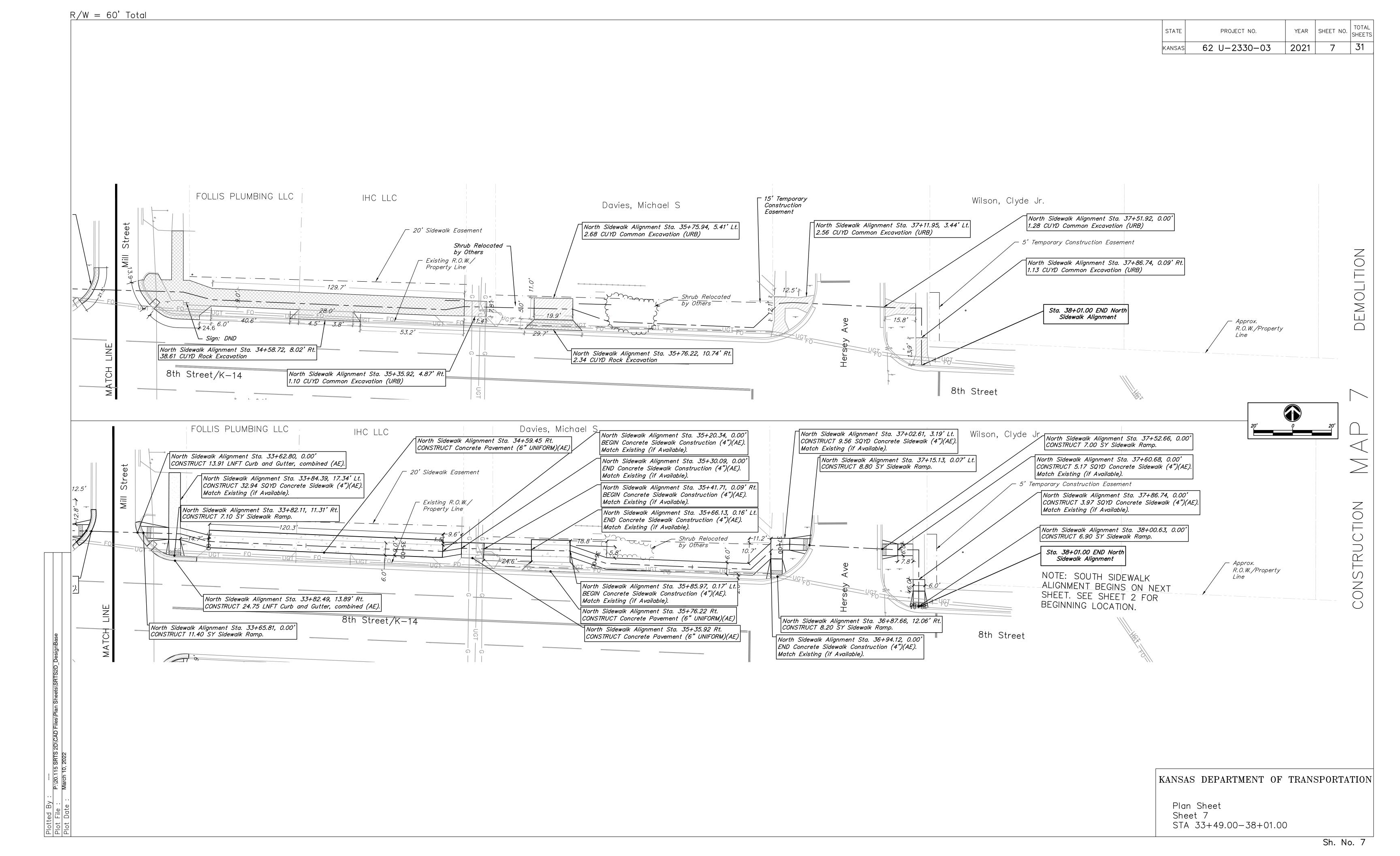


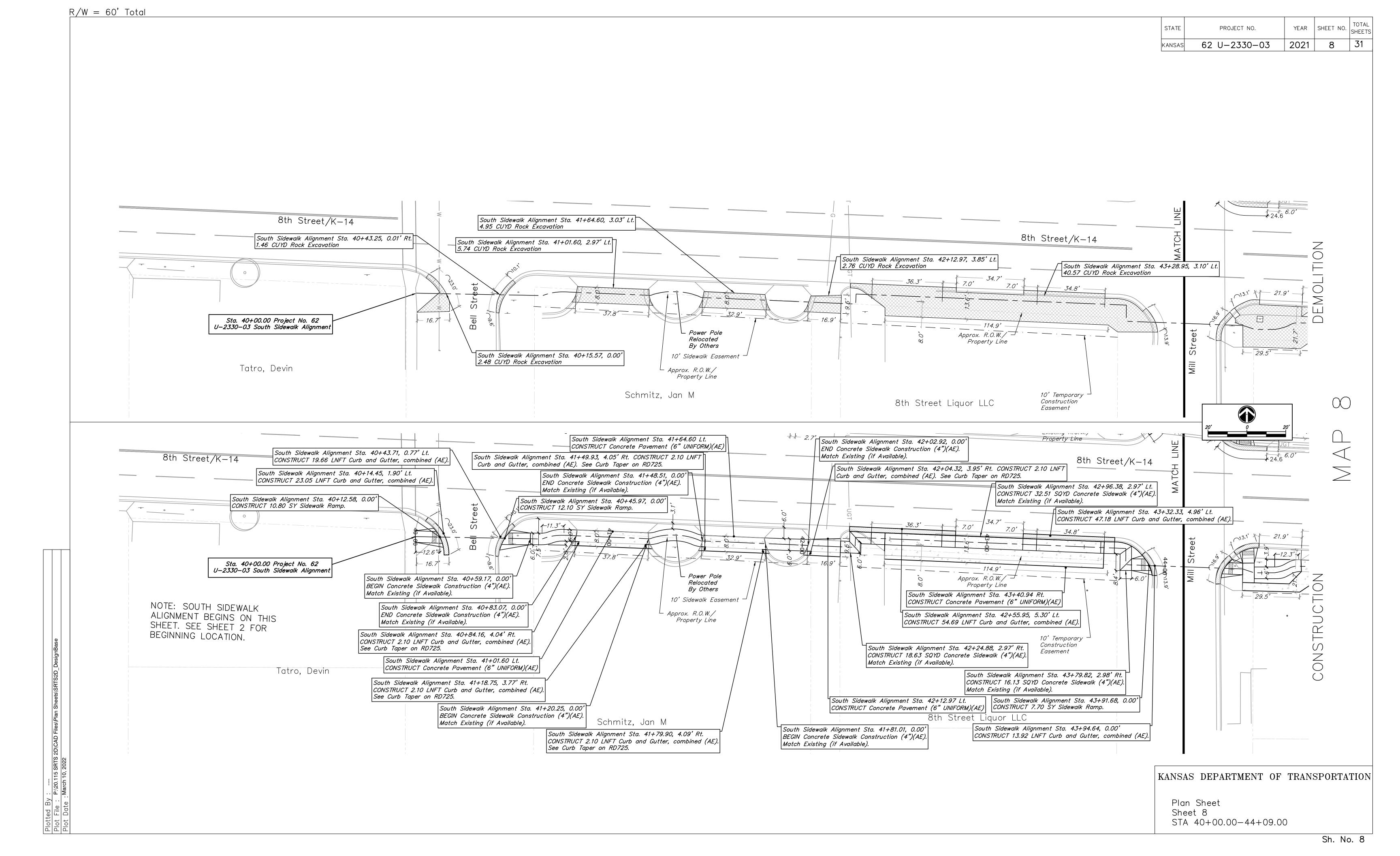


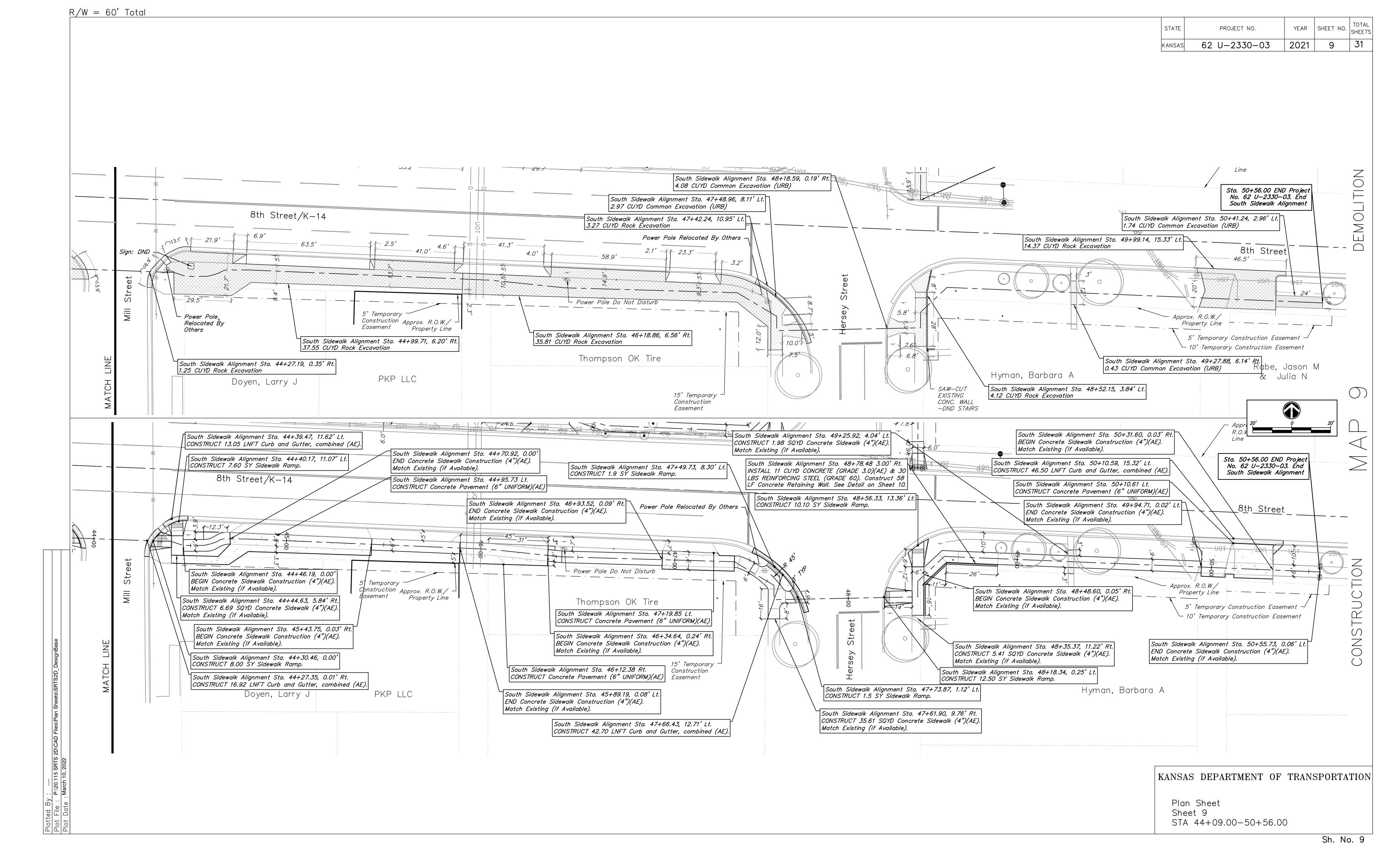


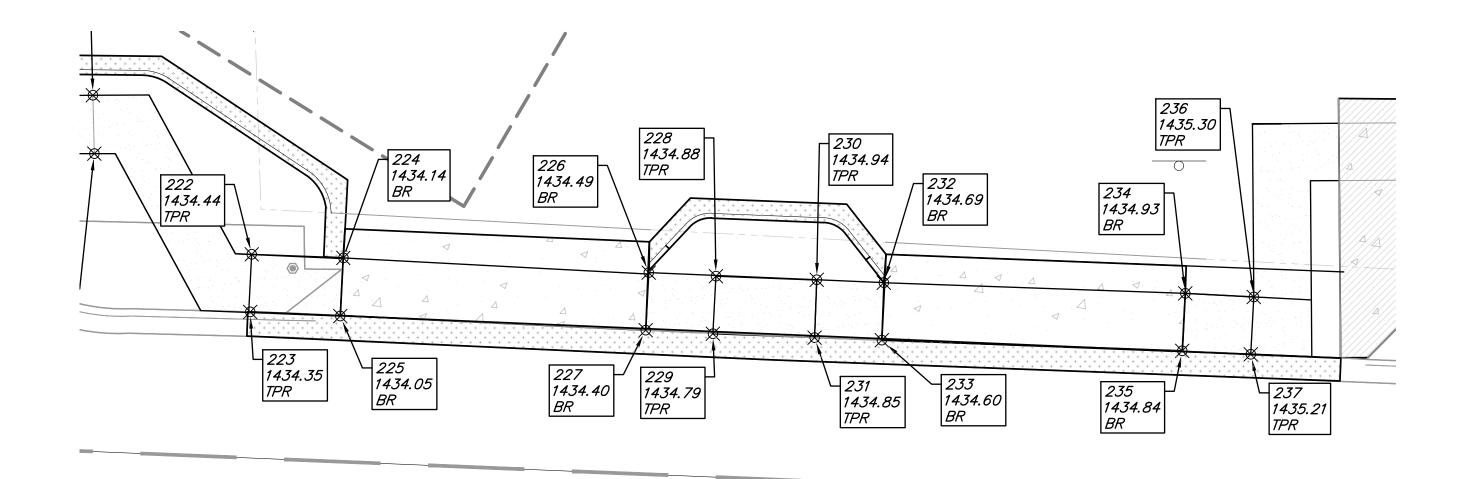




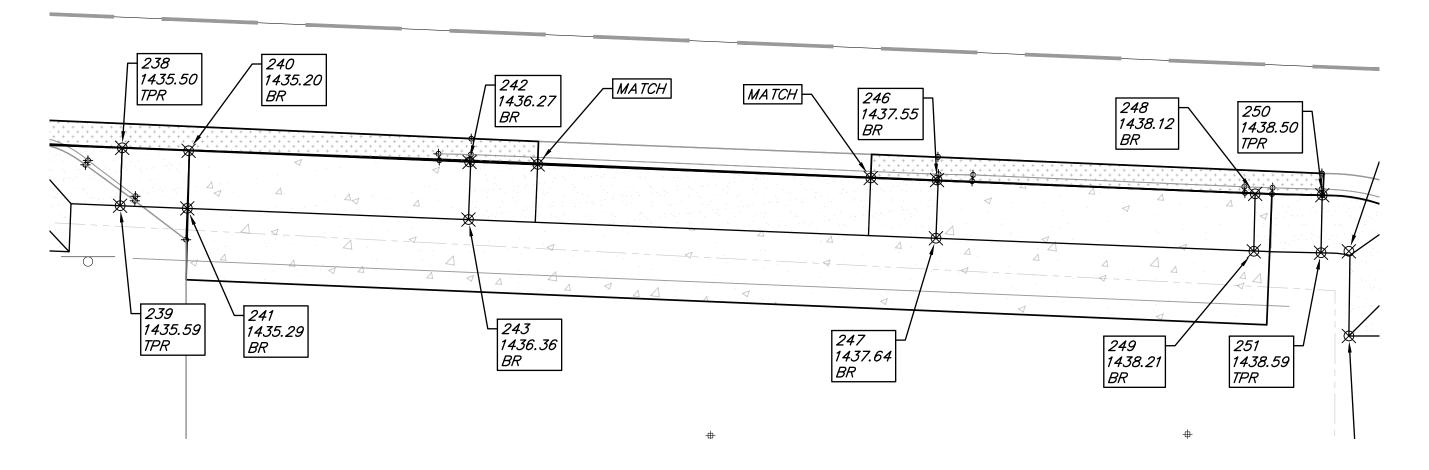




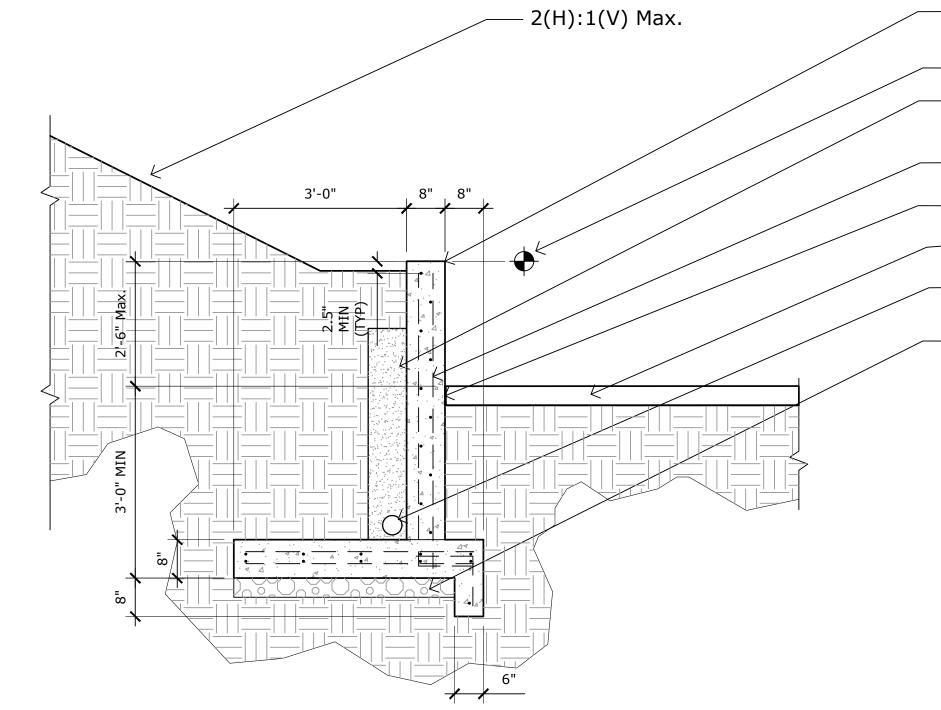




North 8th St. Alignment: STA 29+87.78 — Pump Mart Driveway Grading Detail Scale: 1"=10'



South 8th St. Alignment: STA 42+40.36 — 8th Street Liquor Driveway Grading Detail Scale: 1"=10'



CONCRETE RETAINING WALL DETAIL - TYPICAL SECTION Scale: 1"=10'

-3/4" chamfer on all exposed edges.

Top of wall elevation: 1449.39.

Drainage aggregate wrapped w/ geotextile.

#4 rebar @ 12" o.c. both ways throughout. Maintain 18" min. splice lengths (typ).

— Isolation Joint:  $\frac{1}{2}$ " Joint Filler Material

\_ Finish grade varies (Concrete Sidewalk).

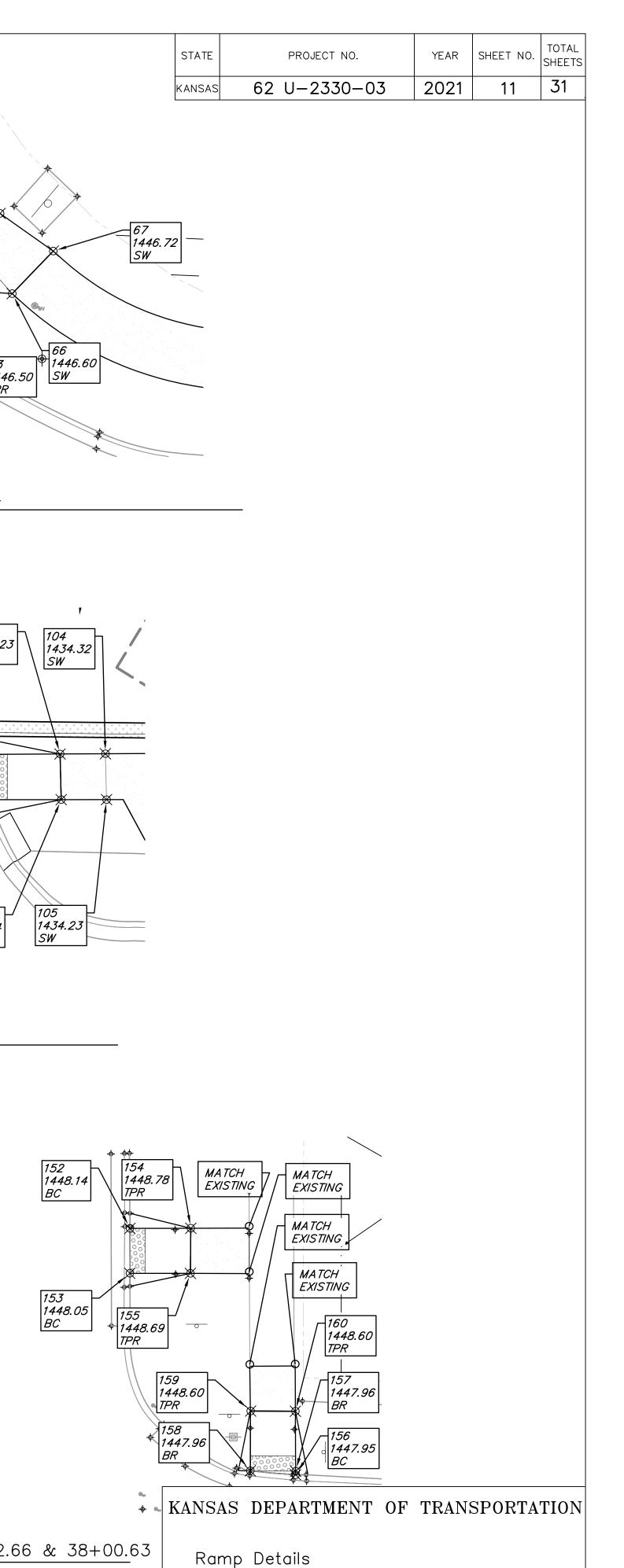
Underdrain pipe

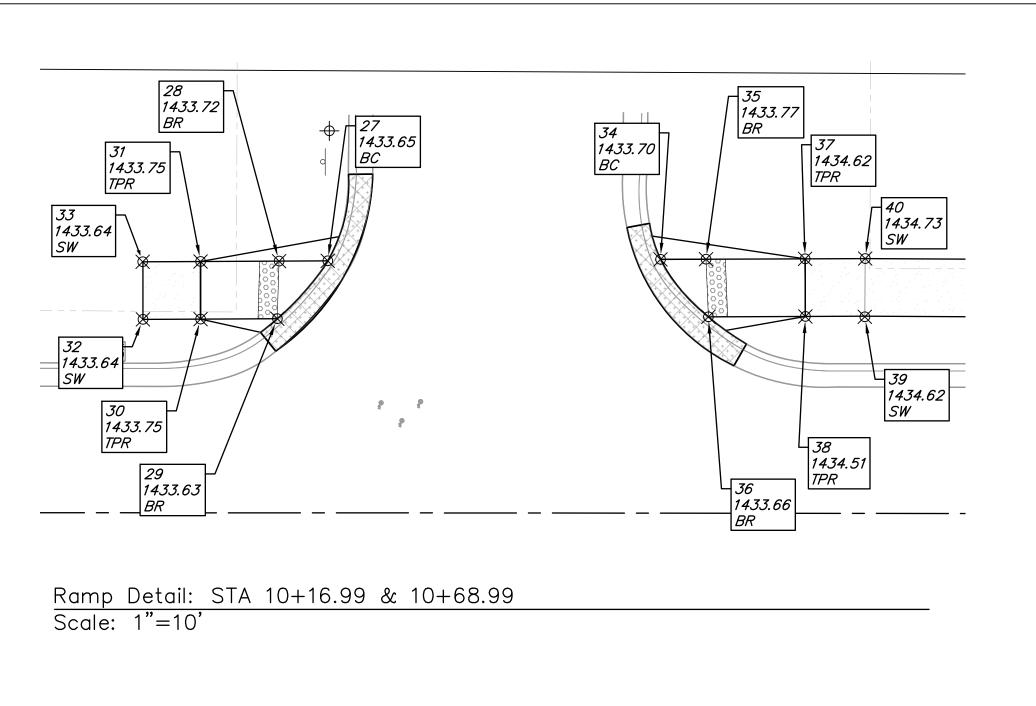
4" th. compacted crushed rock.

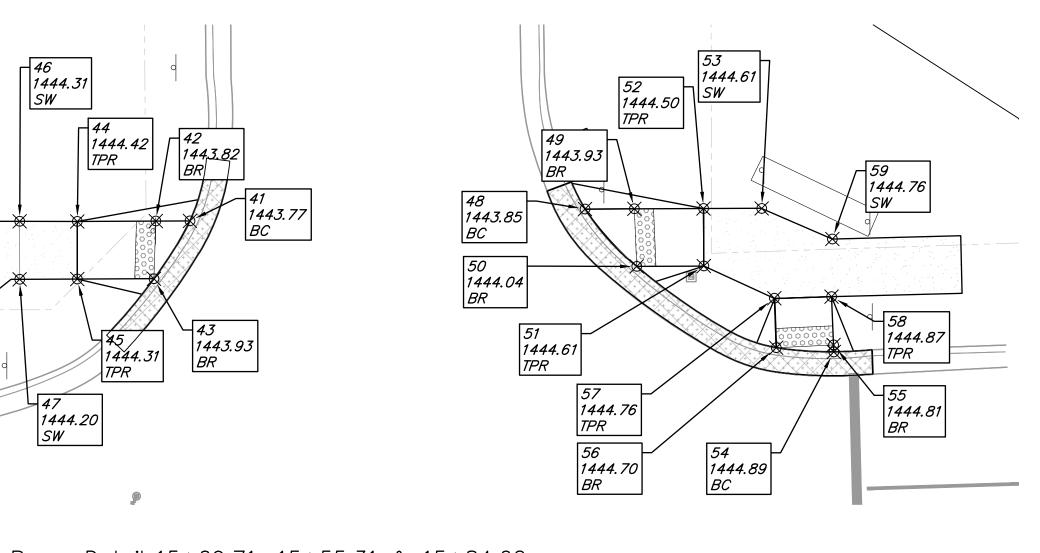
Note: Retaining Wall paid for as Concrete (Grade 3)(AE) and Reinforcing Steel (Grade 60) — All other materials and excavation are subsidiary.

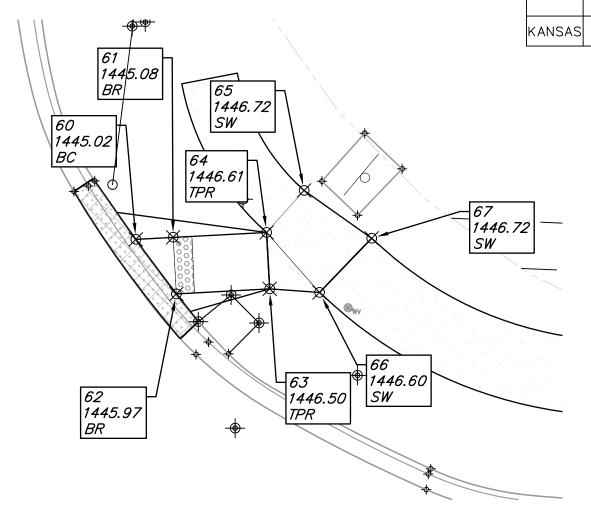
KANSAS DEPARTMENT OF TRANSPORTATION

Drive and Retaining Wall Details Sheet 10



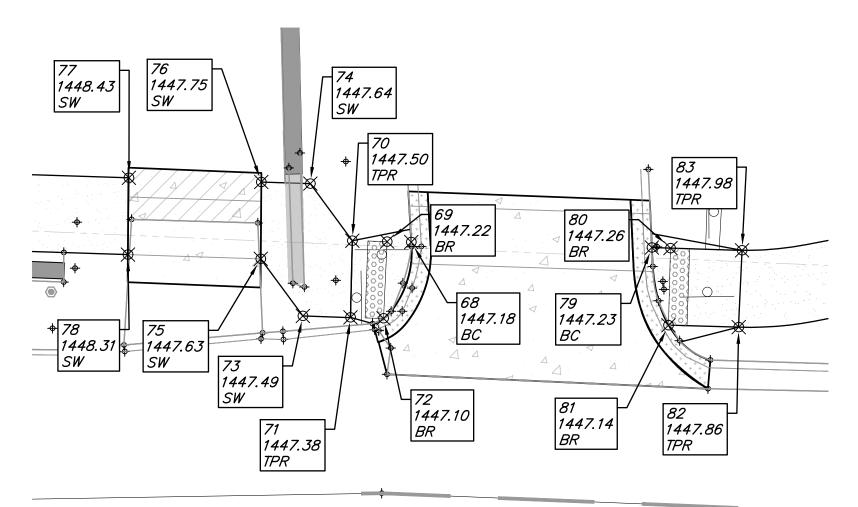


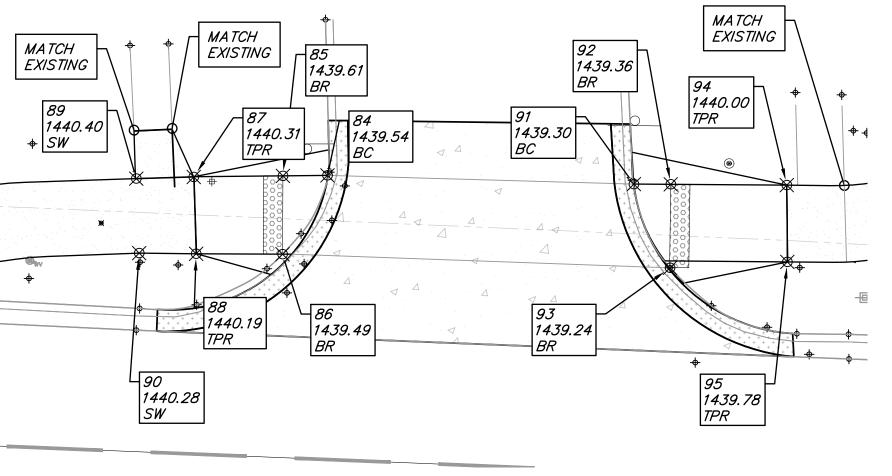


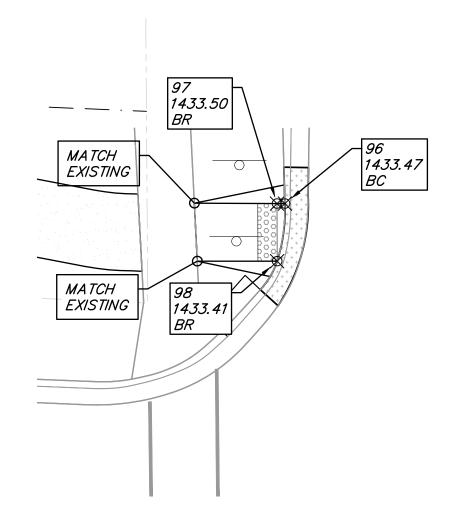


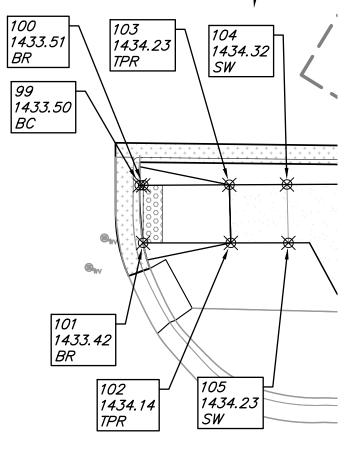
Ramp Detail: 15+09.71, 15+55.31 & 15+84.62 Scale: 1"=10'

Ramp Detail: STA 16+37.14
Scale: 1"=10'







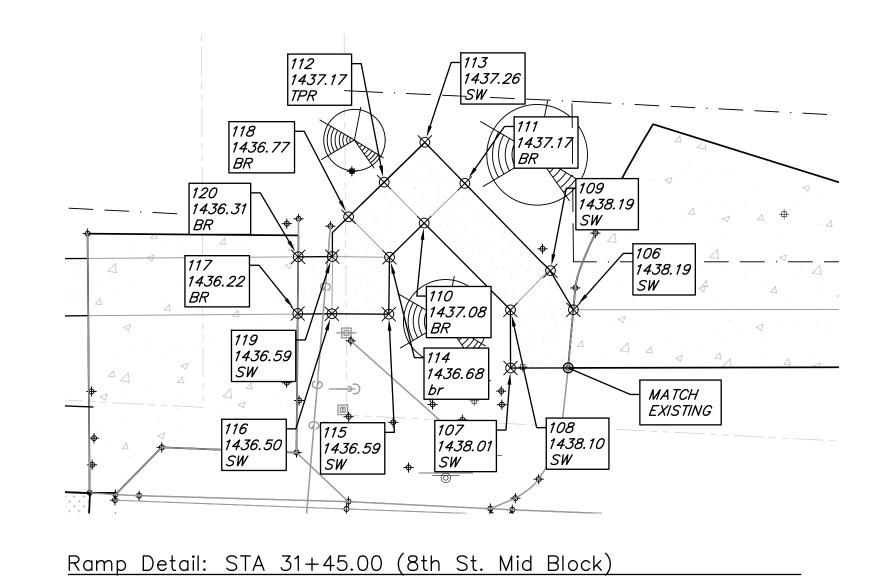


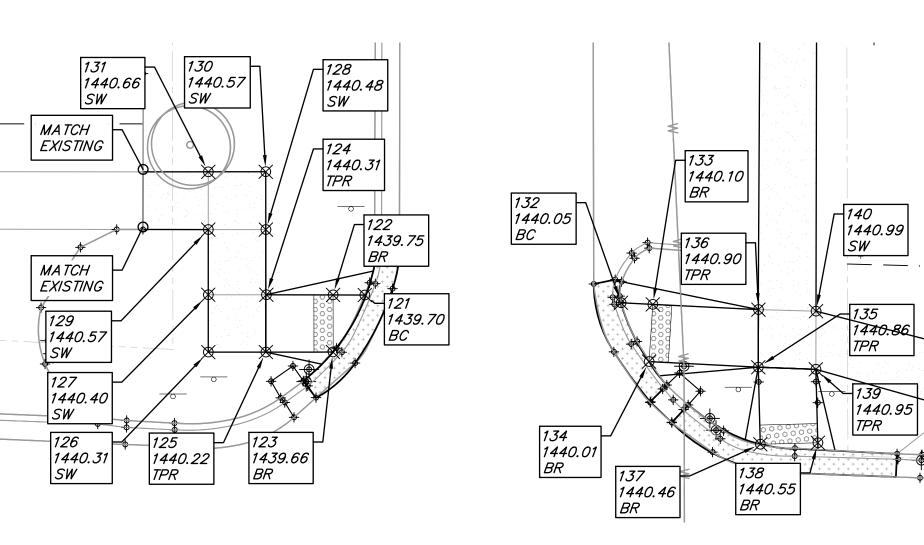
Ramp Detail: STA 19+17.79 & 19+43.83 Scale: 1"=10'

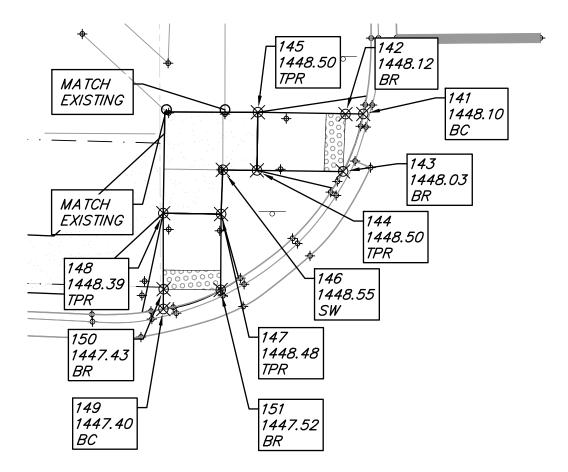
Scale: 1"=10'

Ramp Detail: STA 23+20.04 & 23+55.62 Scale: 1"=10'

Ramp Detail: STA 29+05.12 & 29+49.36 Scale: 1"=10'



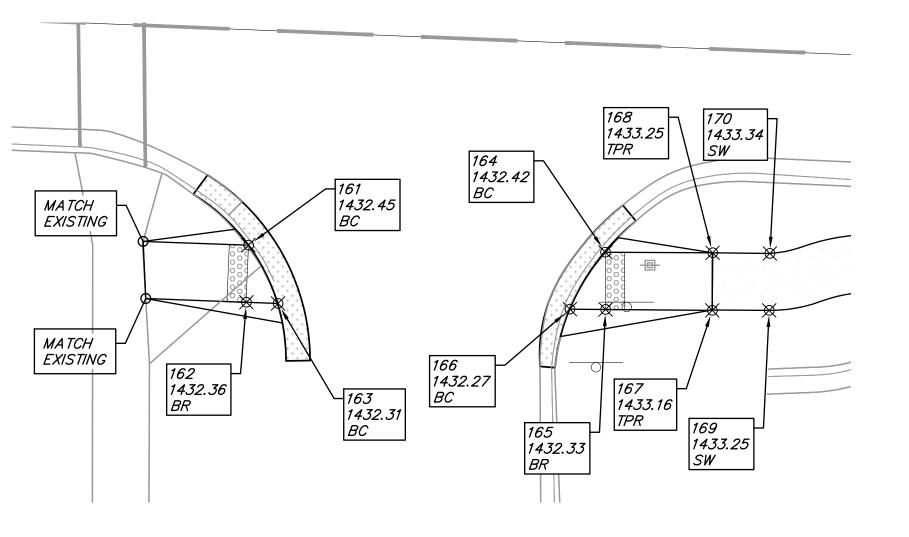




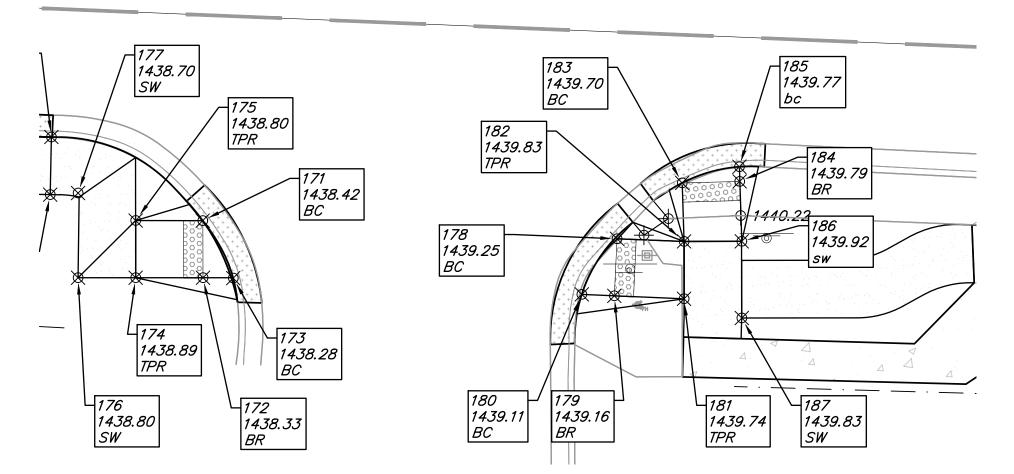
Ramp Detail: STA 33+36.46, 33+65.81 & 33+82.11 Scale: 1"=10'

Ramp Detail: STA 36+87.66, 37+15.13, 37+52.66 & 38+00.63 Scale: 1"=10'

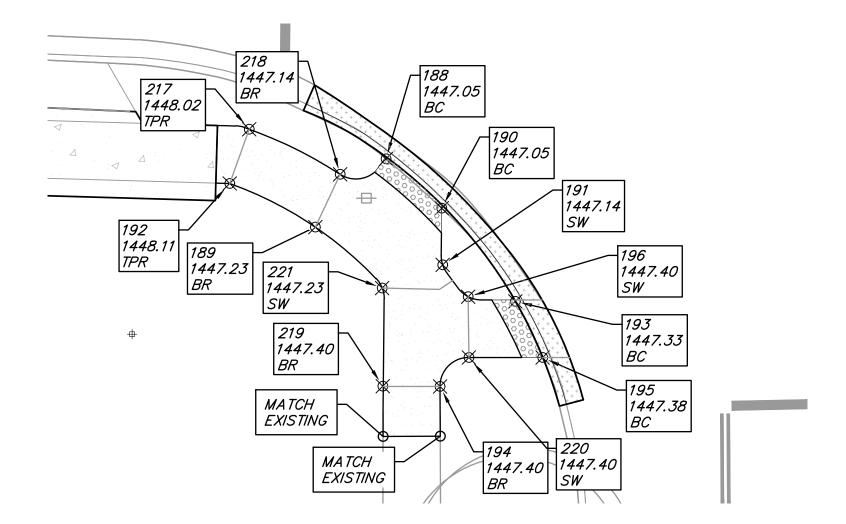
Sheet 11



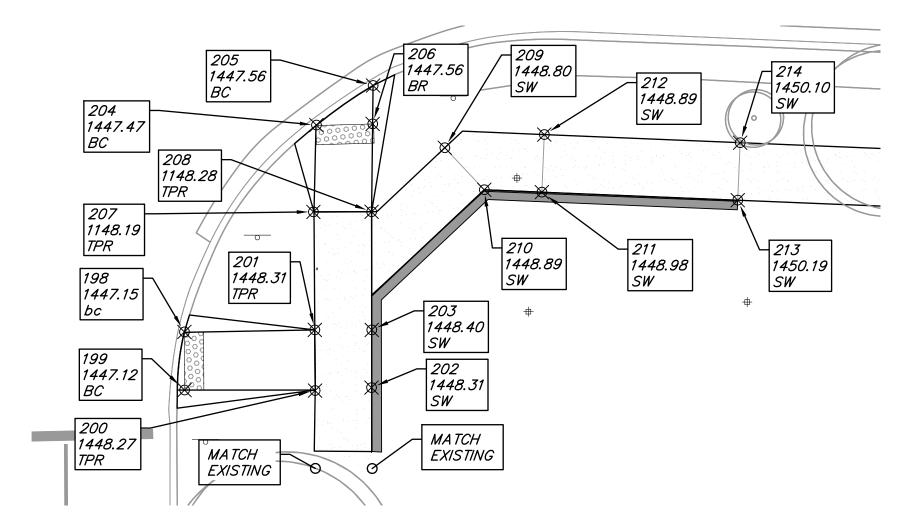
Ramp Detail: STA 40+12.58 & 40+45.97
Scale: 1"=10'



Ramp Detail: STA 43+91.68, 44+30.46 & 44+40.17 Scale: 1"=10'



Ramp Detail: STA 47+49.73 & 47+73.87 Scale: 1"=10'

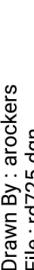


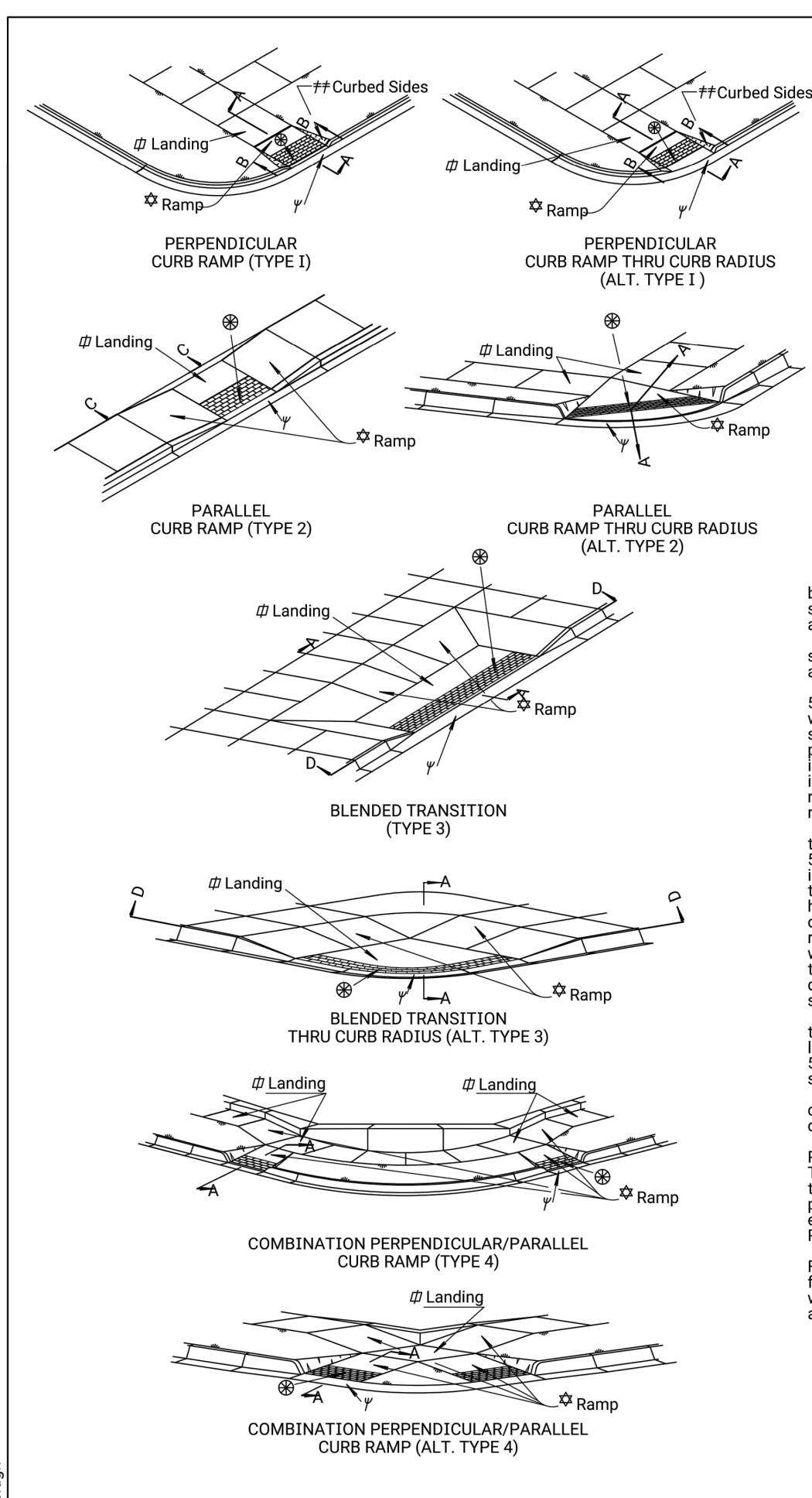
Ramp Detail: STA 48+18.34 & 48+56.33

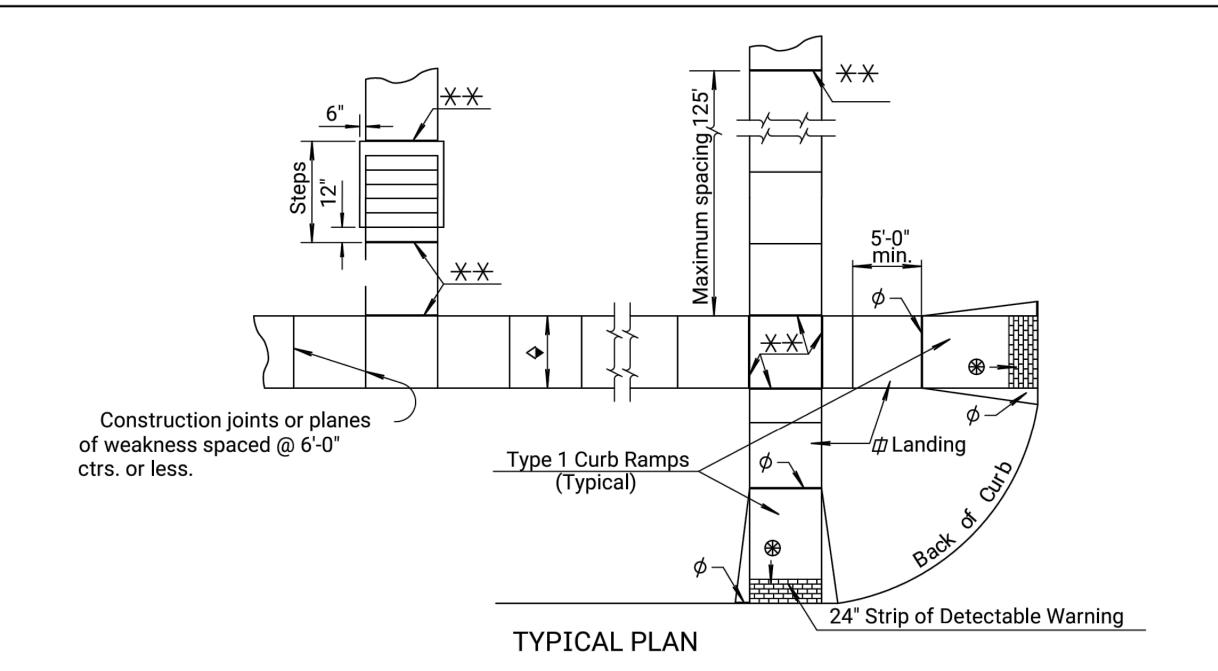
Scale: 1"=10'

KANSAS DEPARTMENT OF TRANSPORTATION

Ramp Details Sheet 12







\$\phi\$ Expansion Joint (\gamma\)" Redwood board) placed at either back of curb line, at sidewalk back of curb line, or at sidewalk line. Alternate expansion joint material may be used as approved by the Engineer.

X Expansion joint (34" Redwood board) located as shown. Alternate expansion joint material may be used as approved by the Engineer

♦The minimum width of newly constructed sidewalk is 5'-0". Where existing conditions prohibit the use of 5'-0" wide sidewalk, 4'-0" wide sidewalk may be used. Where sidewalk width is less than 5'-0" construct 5'-0" x 5'-0" passing spaces located at 200' intervals (max) as shown in the Passing Space Detail. In general, where new sidewalk is constructed parallel or adjacent to a roadway the sidewalk running slopes will match the grade of the adjacent roadway.

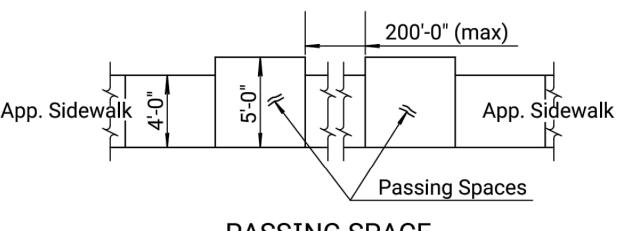
♦ New construction ramp running slopes are 5% (min) to 8.3% (max). Ramp slopes for blended transitions are 5% or flatter. The maximum allowable ramp cross slope is 2% or flatter. Match the ramp width to the width of the approach sidewalk. Curb ramp lengths will vary with curb height. Curb ramp lengths are 5'-0" (min) to 15'-0" (max). All other ramp lengths are 5'-0" (min) to 30'-0" (max). Where roadway grades are relatively flat and curb ramp lengths will exceed 15'-0", ramps may be constructed in succession to tie into existing sidewalk. Maintain ramp slopes and dimensions as previously stated and install a landing between successive ramp runs.

☐ Use a landing slope of 2% or flatter. Landings are the same width as ramps and adjacent sidewalk with a length measured in the direction of the street crossing of 5'-0" (min). Landings are not required where the ramp running slope is 5% or flatter.

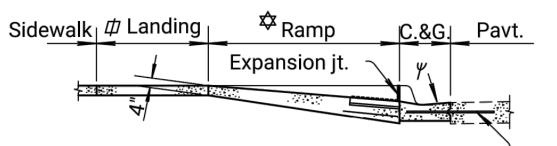
YUse a counter slope of 5% or flatter at the base of curb ramps. Refer to Standard Drawing RD725A for additional curb and gutter details.

\*Detectable warning installation is typical and required on Perpendicular Ramps (Type 1), Parallel Ramps (Type 2), Blended Transitions (Type 3), median ramp crossings with widths greater than or equal to 6'-0", and other locations as shown in the plans. Install detectable warnings parallel to pedestrian travel except where otherwise shown in the plans. See Standard Drawing RD725A for additional details.

##Use flared sides in place of curbed sides as shown in Flared Side Alt. when not located adjacent to landscaping, street furniture, chains, fencing, or railing. Curbed sides are not permitted within the pedestrian access route. See PROWAG for pedestrian access route definition.

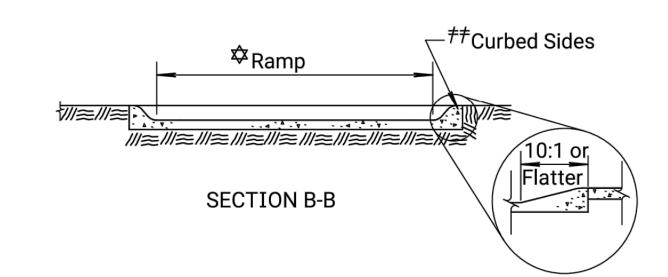


**PASSING SPACE DETAIL** 

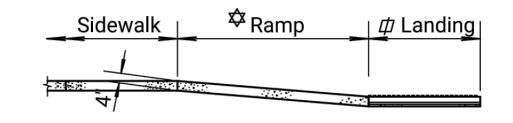


Reinforcement as in adjacent curb & gutter.

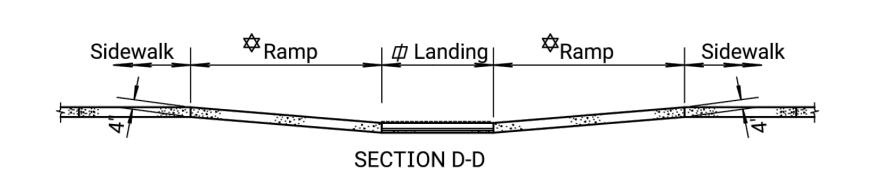
**SECTION A-A** 



FLARED SIDE ALT.



SECTION C-C



#### **GENERAL NOTES**

PROJECT NO.

KANSAS 62 U-2330-03

YEAR | SHEET NO. |

13

2021

STATE

Construct sidewalk and ramps in accordance with the current Public Rights of Way Accessibility Guidelines (PROWAG).

The details depicted here may not be appropriate for all locations. Construct to meet this criteria on all roadway alteration projects as defined by the Department of Justice/
Department of Transportation Joint Technical Assistance on ADA Title II Requirements. For an existing sidewalk facility where the sidewalk will be replaced, replace sidewalk in accordance with PROWAG.

Details shown on this sheet apply to newly constructed and existing sidewalk and ramps where roadway alteration projects take place. See KDOT's Standard Specifications for additional information.

Provide ramps at all corners of street intersections where there is an existing or proposed sidewalk and curb. Provide curb ramps at mid-block walk locations for hospitals, medical centers, and athletic stadiums.

Locate ramps as shown on the plans or as directed by the Engineer.

Do not place drainage structures in line with ramps except where existing drainage structures are being utilized in the new construction. Ramp locations should take precedence over the location of drainage structures. Where existing manhole access lids are located on ramps within the area of the detectable warnings and the manhole lid cannot be removed or relocated; install a lid with a detectable warning surface in accordance with PROWAG. Limit drainage across ramps where practicable.

Construct ramps with uniform grade free of sags and short grade changes.

Place ¾" Redwood expansion joints flush with the surface at a maximum spacing of 125'. Place 3/4" Redwood expansion joints at sidewalk junctions, see plan details. Where

sidewalk abuts a curb place ¾" Redwood board expansion joint flush with the surface.

Place ½" premolded (Type B or C) joint filler where sidewalk is parallel and adjacent to

⚠ Place sidewalk shown to be constructed in back of an entrance 6" thick with welded wire mesh reinforcement. Gauge and spacing of wires are the same as entrance pavement (See Reinforcement Diagram). The bid item will be "Sidewalk Construciton" either with or without air entrainment. Macro fiber reinforcement may be substituted for welded wire. See KDOT's Standard Specifications for additional information. Slope sidewalk toward the street at 2% or flatter. Slope or depress sidewalk where necessary to fit alleys and entrances, see plans for details.

Contractor may opt to use Concrete Grade 3.0 (AE) throughout for construction of

steps, but all work and materials are paid for under the bid item "Grade 3.0 Conc. (Misc.)" All work and materials needed to construct sidewalk will be paid for under the bid item

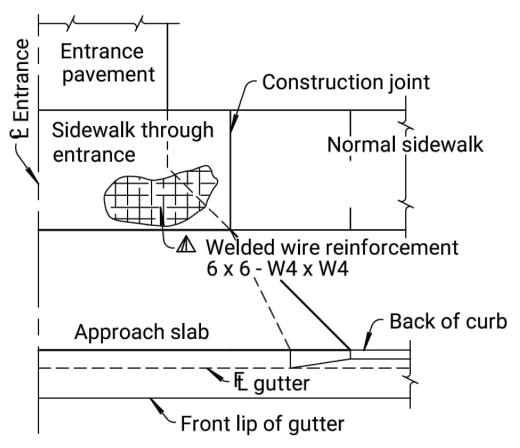
"Sidewalk Construction". All work and materials needed to construct ramps will be paid for under the bid item.

See Standard Drawing RD725A for additional information.

Ramps shall be present at each end of a crosswalk

For handrails with steps see Standard Drawing RD725B for details.

For handrails with ramps see Standard Drawing RD725C for details. For alley and entrance pavement see Standard Drawing RD726 for details.



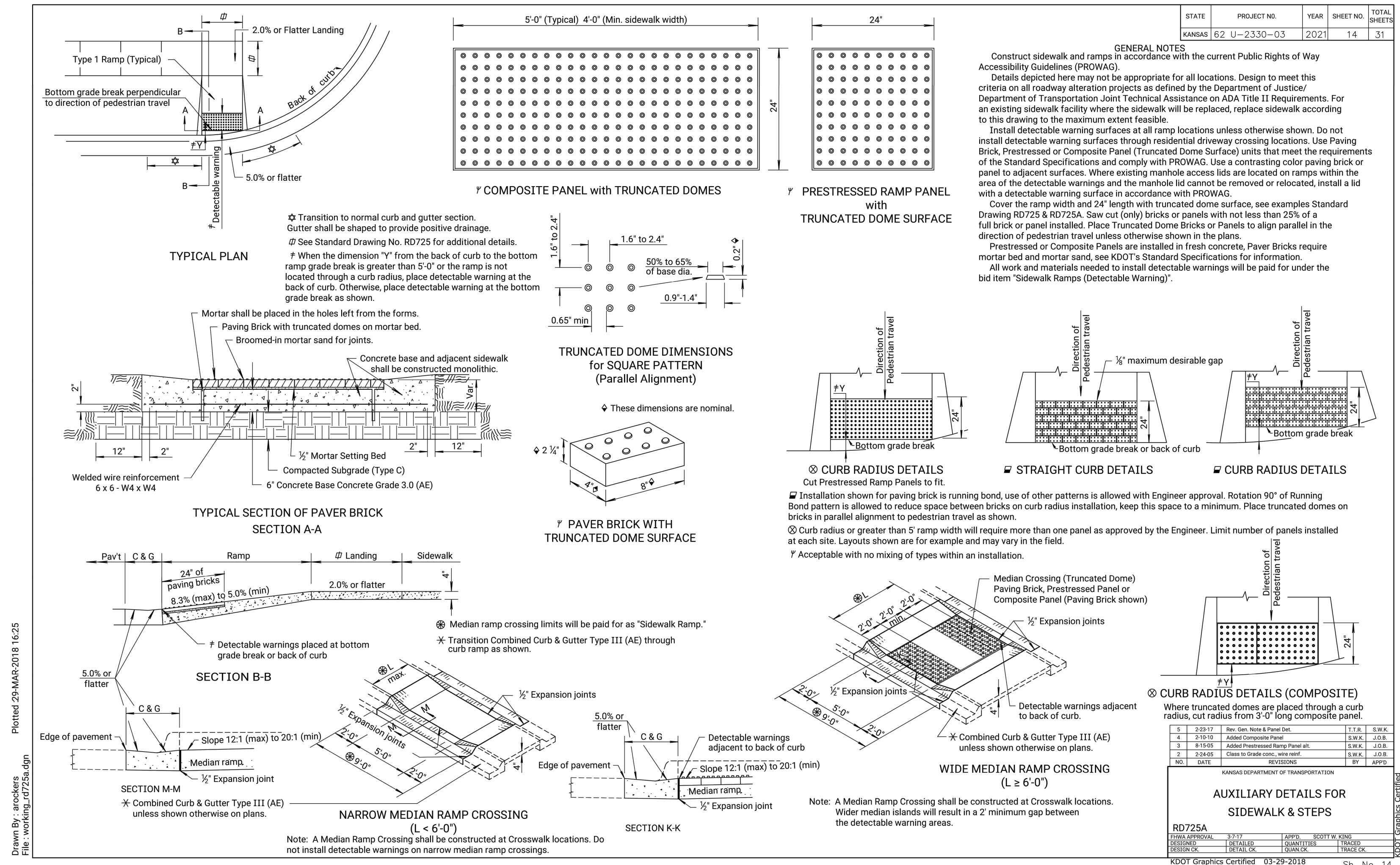
REINFORCEMENT DIAGRAM SIDEWALK THROUGH ENTRANCE

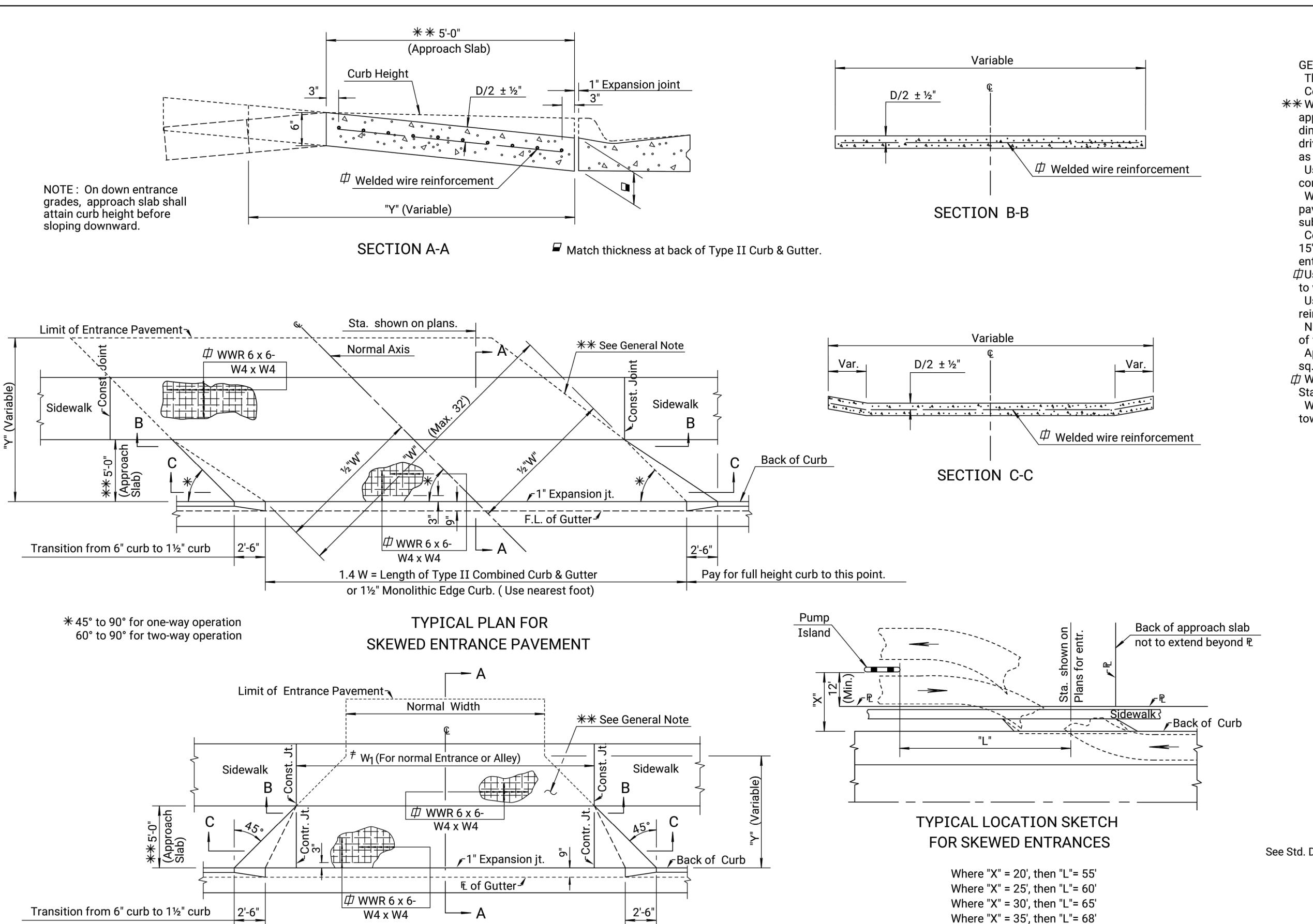
13 | 10-31-17 | Joint Filler Type C Added

	12	2-23-17	Rev. Ramp Typ., Gen. No	ote, & Details	T.T.R.	S.W.K.	]
	11	10-17-1 1	Revised General Note		S.W.K.	J.O.B.	
	10	5-23-1 1	Revised notes		S.W.K.	J.O.B.	
	NO.	DATE	REVI	SIONS	BY	APP'D	]
			SIDEWALI & ST	K, RAMPS,			cs Certified
l			ασι	EPS			ļ.
	RD	725	ασι	EP3			raphi
		725 APPROVAL	3-5-2018	APP'D. SCOTT W.	KING		r Graphi
-		APPROVAL		APP'D. SCOTT W. QUANTITIES T	RACED		OT Graphics
L	FHWA	APPROVAL NED	3-5-2018	APP'D. SCOTT W. QUANTITIES T			<b>]</b> ⊢

KDOT Graphics Certified 03-26-2018

A.L.R. S.W.K.





Pay for full height

curb to this point.

"W" + 5' = Length of Type II Combined Curb &

Gutter or 1½" Monolithic Edge Curb

TYPICAL PLAN FOR

NORMAL ENTRANCE PAVEMENT

\* Note: Value of "W" for Normal entrance.

16' min. for Alley.

40' max.

13' min. for Private entrance.

YEAR SHEET NO. TOTAL SHEETS STATE PROJECT NO. KANSAS 62 U-2330-03 2021 15 | 31

#### **GENERAL NOTES**

The angles may be varied to fit special conditions. Construct entrance approach slab unless otherwise shown.

\*\* Where entrance pavement is required to extend beyond the 5' approach slab, follow the extension lines shown to the limit of dimension "Y". Beyond this limit match normal alley or entrance driveway pavement width. The 5' concrete approach slab is shaped as shown regardless of sidewalk location.

Use 1" preformed Expansion Joint Filler (Type B or C) for concrete 1" expansion joint.

Where valley gutter, alley, and/or entrance pavement is the only pavement on the project, Concrete Grade 3.0 (AE) may be used, subgrade paper and joint parting strips are not required.

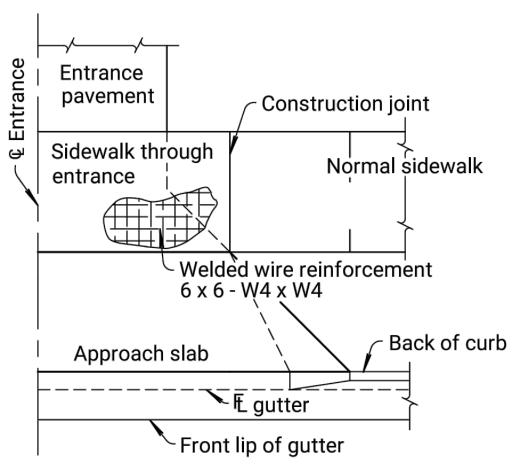
Construct a longitudinal tied joint at W/2 on slabs greater than 15' in width. Place joints on wider slabs to help guide vehicles entering and leaving the entrance, minimum joint spacing is 6 feet. ☐ Use #4 x 2'-0" deformed tie bars @ 12" spacing as an alternate to welded wire fabric through approach slab joints.

Use chairs for correct vertical placement of welded wire reinforcement and/or tie bars.

No tie bars or wire reinforcement should extend through the joint of the approach slab into the sidewalk or alley.

Approx. weight of welded wire reinforcement = 58 lbs. per 100 sq. ft..

Standard Specifications for macro fiber and dosage requirements. Where sidewalk is constructed through an entrance slope sidewalk toward the street at 2% or flatter.



### REINFORCEMENT DIAGRAM SIDEWALK THROUGH ENTRANCE

See Std. Drawing RD725 & RD725A for additional sidewalk details.

Where "X" = 40', then "L"= 70'

-	9 8 7	10-31-17 2-23-17 10-20-10		ype C Added en. Note er opt., General note	A.L.R. T.T.R. S.W.K.	S.W.K. S.W.K. J.O.B.	
	6	3-30-05		o Grade conc., mesh	S.W.K.	J.O.B.	1
	NO.	DATE	REVI	SIONS	BY	APP'D	]
		,	KANSAS DEPARTMENT (	OF TRANSPORTATION			fied
	RD7	726	ENTRANC				<b>Graphics Certified</b>
_	RD7	726 APPROVAL	ENTRANC  3-5-18 DETAILED	E PAVEME  APP'D. SCOTT W QUANTITIES			OT Graphics Certi

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ot File :	P:\20.115 SRTS 2D\CAD Files\Plan Sheets\SRTS2D_DesignBa
. 4-00 +0	March 10, 2022

:022	
March 10, 2	

	SUMMARY OF COMMON EXCAVATION								
NORT	NORTH SIDEWALK ALIGNMENT								
#	BEGIN STA	AREA	DEPTH	QUANTITY					
		SQFT	FT	CUYD					
1	11+61.37	373.27	0.33	4.56					
2	18+90.53	73.28	0.33	0.90					
3	21.62.22	96.03	0.33	1.17					
4	22+69.96	491.95	0.33	6.01					
5	23+74.60	134.67	0.33	1.65					
6	30+96.69	511.07	0.33	6.25					
7	35+35.92	90.29	0.33	1.10					
8	35+75.94	219.02	0.33	2.68					
9	37+11.95	209.84	0.33	2.56					
10	37+51.92	104.56	0.33	1.28					
11	37+86.74	92.60	0.33	1.13					
		Total North Sidewalk	Alignment	29.29					

HSIDEWALK	ALIGNMENT		
BEGIN STA	AREA	DEPTH	QUANTITY
	SQFT	FT	CUYD
47+48.96	242.65	0.33	2.97
48+18.59	333.62	0.33	4.08
49+27.88	35.27	0.33	0.43
50+41.24	142.71	0.33	1.74
	Total South Sidewall	k Alignment	9.22
	Total of Both Alig	nments	38.51
	47+48.96 48+18.59 49+27.88	SQFT  47+48.96 242.65  48+18.59 333.62  49+27.88 35.27  50+41.24 142.71  Total South Sidewall	BEGIN STA         AREA         DEPTH           SQFT         FT           47+48.96         242.65         0.33           48+18.59         333.62         0.33           49+27.88         35.27         0.33

SUMMARY OF CURB AND GUTTER, COMBINED (AE)

IORTH	SIDEWALK A	IGNMENT			
#	STA	LENGTH	LOCATION	TYPE	QUANTIT
		LF			LF
1	10+20.07	21.56	Ramp	Type II	21.
2	10+54.85	18.41	Ramp	Type II	18.4
3	15+10.13	23.12	Ramp	Type II	23.
4	15+61.54	41.00	Ramp	Type II	41.0
5	16+33.84	18.92	Ramp	Type II	18.9
6	17+23.31	16	Drive	Type II	16.
7	17+34.22	16.01	Drive	Type II	16.0
8	19+18.84	17.78	Drive	Type II	17.
9	19+41.75	22.58	Drive	Type II	22.
10	20+61.09	17.47	Drive	Type II	17.4
11	20+71.95	18.01	Drive	Type II	18.0
12	21+61.62	16.03	Ramp	Type II	16.0
13	21+62.91	13.21	Ramp	Type II	13.2
14	23+20.85	33.86	Drive	Type II	33.8
15	23+53.48	34.36	Ramp	Type II	34.3
16	25+11.67	36.41	Drive	Type II	36.
17	25+28.04	37.81	Drive	Type II	37.8
18	28+20.73	17.21	Drive	Type II	17.3
19	28+33.73	17.13	Drive	Type II	17.
20	29+07.62	15.02	Ramp	Type II	15.0
21	29+68.16	65.74	Ramp	Type II	65.
22	30+37.52	29.19	Drive	Type II	29.
23	30+67.92	114	Drive	Type II	114.0
24	33+39.07	23.94	Ramp	Type II	23.9
25	33+62.80	13.91	Ramp	Type II	13.9
26	33+82.49	24.75	Ramp	Type II	24.
			Total North A	lignment	723.4
SOUTH	I SIDEWALK A	LIGNMENT			
1	40+14.45	23.05	Ramp	Type II	23.0
2	40+43.71	19.66	Ramp	Type II	19.6
3	40+85.09	8.4	Drive	Type II	8.4
	41+17.81	8.48	Drive	Type II	8.4
4	THE DOT OF THE SECOND ST.	100,000,000,000	Drive		8.4
5	41+50.80	8.41	Drive	i ype ii	0.4
	41+50.80 41+78.74	8.41 8.32	Drive	Type II Type II	
5				Type II	8.3
5 6	41+78.74	8.32 8.86	Drive	Type II Type II	8.3 8.8
5 6 7	41+78.74 42+05.27	8.32 8.86 54.69	Drive Drive	Type II Type II Type II	8.3 8.8 54.0
5 6 7 8	41+78.74 42+05.27 42+55.95	8.32 8.86 54.69 47.18	Drive Drive Drive Drive	Type II Type II Type II Type II	8.3 8.3 54.0 47.3
5 6 7 8 9	41+78.74 42+05.27 42+55.95 43+32.33 43+94.64	8.32 8.86 54.69 47.18 13.92	Drive Drive Drive Drive Ramp	Type II Type II Type II Type II Type II	8.3 8.8 54.0 47. 13.9
5 6 7 8 9	41+78.74 42+05.27 42+55.95 43+32.33 43+94.64 44+27.35	8.32 8.86 54.69 47.18 13.92 16.92	Drive Drive Drive Drive	Type II Type II Type II Type II Type II Type II	8.3 8.8 54.6 47.1 13.9
5 6 7 8 9 10	41+78.74 42+05.27 42+55.95 43+32.33 43+94.64	8.32 8.86 54.69 47.18 13.92	Drive Drive Drive Drive Ramp Ramp	Type II Type II Type II Type II Type II	8.8 8.8 54.6 47.1 13.9 16.9 13.0

Total Both Alignments 997.07

		T			1	T				
100 Pet 1990 Pe	( EXCAVATION									
NOR.	TH SIDEWALK ALIGNN	MENT								
#	STA	WIDTH	LENGTH	DEPTH	~DES	CRIPTION	QUANTITY	AREA	<b>DEPTH</b>	QUANTITY
		FT	FT	FT			CUYD	SQFT	FT	CUYD
1	10+19.90	2	21.56	1	Curb		1.60			0.00
2	10+54.16	2	18.41	1	Curb		1.36			0.00
3	13+54.11					Driveway	0.00	852.73	0.5	15.79
4	15+12.98	2	23.12	1	Curb		1.71			0.00
5	15+60.61	2	41.01	1	Curb		3.04			0.00
6	16+33.79	2	18.9	1	Curb		1.40			
7	17+30.58					Driveway	0.00	244.52	0.5	4.53
8	18+90.84					Driveway	0.00	89.65	0.5	1.66
9	19+30.34					Driveway	0.00	542.68	0.5	10.05
10	20+67.51					Driveway	0.00	243.44	0.5	4.51
11	21+61.59	2	13.21	1	Curb		0.98			0.00
12	21+62.85	2	16.02	1	Curb		1.19			0.00
13	23+38.72					Driveway	0.00	948.64	0.5	17.57
14	25+20.34					Driveway	0.00	699.84	0.5	12.96
15	28+30.43					Driveway	0.00	288.24	0.5	5.34
16	29+07.41	2	15.02	1	Curb		1.11			0.00
17	29+45.05	2	14.02	1	Curb		1.04			0.00
18	30+38.30					Driveway	0.00	2234.886	0.5	41.39
19	32+14.10					Driveway	0.00	989.87	0.5	18.33
20	33+31.37	2	23.94	1	Curb		1.77			0.00
21	34+58.72					Driveway	0.00	2084.83	0.5	The second con-
22	35+76.22					Driveway	0.00	126.36	0.5	2.34

SOUT	TH SIDEWALK ALIGNM	<b>MENT</b>							
#	STA	WIDTH	LENGTH	DEPTH	~DESCRIPTION	QUANTITY	AREA	DEPTH	QUANTITY
		FT	FT	FT		CUYD	SQFT	FT	CUYD
1	40+15.57				Driveway	0.00	134.16	0.5	2.48
2	40+43.25	2	19.66	1	Curb	1.46			0.00
3	41+01.60				Driveway	0.00	310.22	0.5	5.74
4	41+64.60				Driveway	0.00	267.38	0.5	4.95
5	42+12.97				Driveway	0.00	149.27	0.5	2.76
6	43+28.95				Driveway	0.00	2190.6395	0.5	40.57
7	44+27.19	2	16.92	1	Curb	1.25			0.00
8	44+99.71				Driveway	0.00	2027.85	0.5	37.55
9	46+18.86				Driveway	0.00	1933.69	0.5	35.81
10	47+42.24	2	44.2	1	Curb	3.27			0.00
11	49+99.14				Driveway	0.00	775.86	0.5	14.37
						21.18			317.31
						Total of Both Alig	nments		338.49

NOR	TH SIDEWALK ALI		E PAVEIVIEINI (	6" UNIFORM)(AE)	
#	STA	WIDTH	LENGTH	LOCATION	QUANTITY
		FT	FT		SQYD
1	11+61.38	35.65	10.53	Drive	44.4
2	13+53.95	60.57	14.21	Drive	98.3
3	17+30.58			Drive	22.9
4	18+90.83	13.85	11.94	Drive	21.1
5	19+31.69			Drive	51.6
6	20+66.69	10.83	14.46	Drive	20.1
7	23+38.72			Drive	89.2
8	25+19.93			Drive	62.0
9	28+23.47	12.8	17.17	Drive	24.4
10	30+09.44	32.9	9.03	Drive	35.7
11	30+70.35	33.82	8.99	Drive	36.5
12	31+30.96	21.78	23.54	Drive	59.7
13	32+14.08			Drive	112.7
14	34+59.45	120.36	9	Drive	123.1
15	35+35.92	10.33	7.86	Drive	11.7
16	35+76.22			Drive	38.5
				North Alignment	851.8
SOUT	TH SIDEWALK ALI	GNMENT			
1	41+01.60			Drive	32.3
2	41+64.60			Drive	27.7
3	42+12.97			Drive	16.8
4	43+40.49			Drive	172.5
5	44+95.73			Alley	95.8
6	46+12.38	45.34	10.58	Drive	56.0
7	47+19.85			Drive	39.5
8	50+10.61	36.2	17.62	Drive	73.6
				South Alignment	514.2
			Total Bot	h Alignments	1366.0

NORTH S	SIDEWALK ALIGNMENT	-	CONSTRUCTIO		
#	BEGIN STA	END STA	LENGTH	WIDTH	QUANTITY
			FT	FT	SQYD
1	10+00.00	10+06.00	6.00	6.00	4.00
2	10+68.99	11+43.57	74.58	6.00	49.72
3	11+79.26	13+23.88	144.62	6.00	96.4
4	13+84.42	14+99.90	115.48	6.00	76.99
5	15+74.39		13.48	6.00	20.18
6	16+43.95				19.46
7	16+59.02	17+21.49	62.47	8.00	55.50
8	17+36.96	18+83.76	146.80	8.00	130.49
9	18+97.31				11.7
10	19+52.72	20+60.32	107.60	8.00	95.64
11	20+75.16	23+08.99	233.83	8.00	207.8
12	21+62.86		40.65	1.00	4.52
13	23+70.65	25+09.67	139.02	8.00	123.5
14	25+30.04	28+18.74	288.70	8.00	256.62
15	28+35.71	28+90.18	54.47	8.00	48.42
16	29+55.69	29+97.32	41.63	8.00	37.00
17	30+41.86				16.40
18	30+85.12	31+19.60	34.48	6.00	22.99
19	31+41.46	31+85.64	44.18	6.00	29.4
20	33+11.49		25.56	6.00	17.04
21	33+84.39		49.41	6.00	32.94
22	35+20.34	35+30.09	9.75	6.00	6.50
23	35+41.71	35+66.13	24.42	6.00	16.28
24	35+85.97	36+94.12	108.15	6.00	72.10
25	37+02.61		14.34	6.00	9.56
26	37+60.68		7.76	6.00	5.17
27	37+86.74		5.95	6.00	3.97
		İ	Total North Sidew	alk Alignment	1470.5

	SOUTH SIDEWALK ALI	GNMENT			
#	BEGIN STA	END STA	LENGTH	WIDTH	QUANTITY
1	40+59.17	40+83.07	23.90	6.00	15.93
2	41+20.25	41+48.51	28.26	6.00	18.84
3	41+81.01	42+02.92	21.91	6.00	14.61
4	42+55.95			6.00	18.63
5	42+96.38			6.00	32.51
6	43+79.82		21.85	6.00	16.13
7	44+44.63		10.04	6.00	6.69
8	44+46.19	44+70.92	24.73	6.00	16.49
9	45+43.75	45+89.19	45.44	6.00	30.29
10	46+34.64	46+93.52	58.88	6.00	39.25
11	47+61.90		53.42	6.00	35.61
12	48+35.37		8.12	6.00	5.41
13	48+36.99		26.51	6.00	17.67
14	48+48.60	49+94.71	146.11	6.00	97.41
15	49+25.92		5.94	3.00	1.98
16	50+31.60	50+55.73	24.13	6.00	16.09
			Total South Sidewalk Alignment		383.55

Total of Both Alignments

SUMMARY OF CONCRETE (GRADE 3.0)(AE							
# STA ITEM QUANTII							
			CUYD				
1	48+77.48	WALL	11.00				
	Total Both A	lignments	11.0				

SUM	SUMMARY OF REINFORCING STEEL (GRADE 60)								
# STA ITEM QUANTIT									
			LBS						
1	48+77.48	WALL	30.00						
	Total Both A	lignments	30.0						

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	62 U-2330-03	2021	16	31

	K RAIVIPS	Y OF SIDEWAL		
		IGNMENT	RTH SIDEWALK AL	NOF
QUANTITY	QUADRANT	AREA	STA	#
SQYD		SF		
9.8	SW	87.87	10+16.99	1
11.5	NW	103.4	10+68.99	2
8.8	SW	79.42	15+09.71	3
9.1	NW	81.66	15+55.31	4
4.9	NW	44.04	15+84.62	5
11.4	NE	102.47	16+37.14	6
5.5	NE	49.2511	19+17.79	7
9.2	NW	82.9123	19+43.83	8
1.3	NW	11.97	21+61.59	9
8.0	SW	71.59	21+62.21	10
14.5	NW	130.23	23+20.04	11
17.8	NE	160.42	23+55.62	12
7.8	NW	70.35	29+05.12	13
8.1	NE	73.26	29+49.36	14
7.8	NW	70.31	33+36.46	15
11.4	NE	102.52	33+65.81	16
7.1	NE	63.53	33+82.11	17
8.2	NW	73.74	36+87.66	18
8.8	NW	79.59	37+15.13	19
7.0	NE	62.79	37+52.66	20
6.9	NE	62.14	38+00.63	21
184.8	Alignm ent	Total North		

S				
#	STA	AREA	QUADRANT	QUANTITY
		SF		SQYD
1	40+12.58	97.53	SW	10.8
2	40+45.97	108.62	SE	12.1
3	43+91.68	68.97	SW	7.7
4	44+30.46	71.94	SE	8.0
5	44+40.17	68.14	SE	7.6
6	47+49.73	17.2088	SW	1.9
7	47+73.87	13.4613	SW	1.5
8	48+18.34	112.19	SE	12.5
9	48+56.33	90.98	SE	10.1
		Total South Alignment		72.1
		Total Both /	lianmonte	256.0

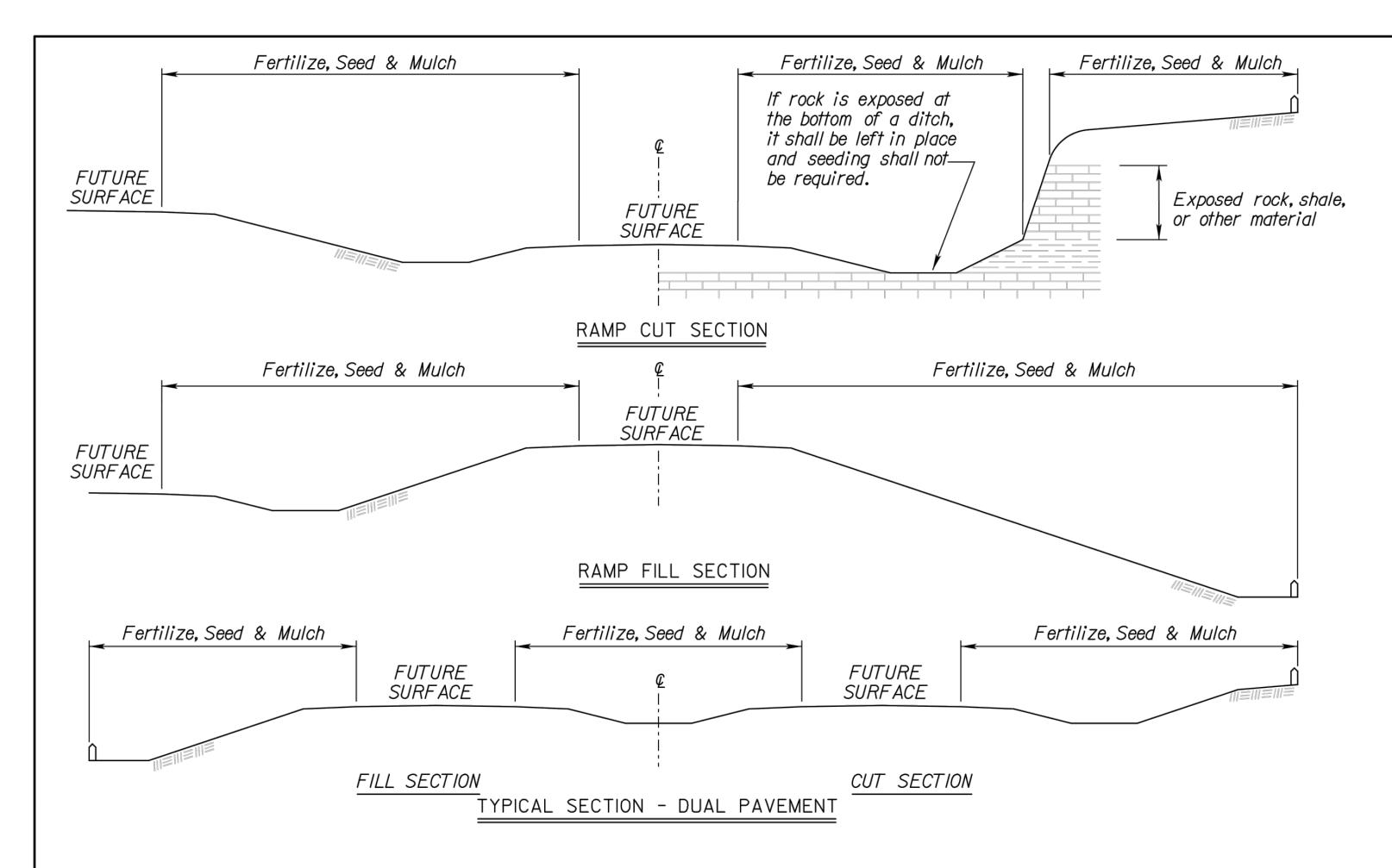
RECAPITULATION OF ROAD C	RECAPITULATION OF ROAD QUANTITIES						
BID ITEM	QUANTITY	UNIT					
MOBILIZATION	Lump Sum	LS					
MOBILIZATION (DBE)	Lump Sum	LS					
CONTRACTOR CONSTRUCTION STAKING	Lump Sum	LS					
COMMON EXCAVATION (URB)	39	CUYD					
ROCK EXCAVATION	338	CUYD					
CURB AND GUTTER, COMBINED (AE)	997	LF					
SIDEWALK CONSTRUCTION (4")(AE)	1854	SQYD					
CONCRETE PAVEMENT (6" UNIFORM)(AE)	1366	SQYD					
SIDEWALK RAMP	257	SQYD					
CONCRETE (GRADE 3.0)(AE)	11	CUYD					
REINFORCING STEEL (GRADE 60)	30	LBS					

- See Sheet 31 - TE795 for Traffic Control Quantities

See Sheet 17 - LA852A for Erosion Control/ Temporary Seeding Quantities
 See Sheet 24 - LA850 for Permanent Seeding Quantities

KANSAS DEPARTMENT OF TRANSPORTATION

Plan Sheet Sheet 16



FERTILIZER: A ratio and application rate that equals or exceeds the required minimum rate per acre of N, P<sub>2</sub>O<sub>5</sub>, K<sub>2</sub>O listed in Summary of Quantities will be acceptable.

- \* N = Nitrogen Rate of Application
- \*\* P<sub>2</sub> O<sub>5</sub> = Phosphorous Rate of Application
- \*\*\*  $\overline{K_2O}$  = Potassium Rate of Application

The Contractor will be required to finish areas of excavation, borrow and embankment in accordance with the specifications. Areas that require installation or construction of temporary water pollution control items will be finished in reasonable close conformity to the alignment, grade and cross section shown on the plans or as established by the Engineer.

CLT = Construction Limit Tract. This area is defined by the entire disturbed area of the project that requires seeding and erosion control measures to be placed. Any impervious areas (i.e. pavement, gravel, riprap, etc.) shall not be included in this measurement.

Slope = Defined by the area of the project that requires Class I erosion control material to be placed. This area shall be seeded using the Soil Erosion Mix prior to placement of the material. Drilling seed is preferred, however, broadcasting is acceptable if drilling is not possible.

Channel = Defined by the area of the project that requires Class 2 erosion control material to be placed. This area shall be seeded using the Soil Erosion Mix prior to placement of the material. Drilling seed is preferred, however, broadcasting is acceptable if drilling is not possible.

#### GENERAL NOTES

The entire disturbed area, excepting the paved or surfaced areas, steep rocky slopes and areas of undisturbed native sod or other desirable vegetation shall be fertilized (limed when required), seeded, and mulched. Soil preparation shall conform to the Standard Specifications.

Temporary seeding shall be done during any time of the year that the soil can be cultivated. After the temporary seeding has been completed on the entire project, permanent seeding shall be done during the normal seeding season.

MULCHING: Mulch shall be spread uniformly over all disturbed areas and punched in the soil, unless otherwise noted on the plans. The rate of application per acre, thickness in place, for the mulching materials is generally as follows:

 $1\frac{3}{4}$  -  $2\frac{1}{4}$  Tons per Acre =  $1\frac{1}{2}$ " loose depth spread uniformly over acre.

Agricultural products, such as native prairie hay, used for mulching and erosion control practices, excluding wood based mulch, shall meet the North American Weed Free Forage Standards.

Other vegetative mulches are acceptable only with the Engineer's concurrence.

The above rate is a guide. It will be at the discretion of the Engineer to determine what rate is sufficient for adequate protection of newly seeded areas.

STATE PROJECT NO.		YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	62 U-2330-03	2021	17	31

P.L.S. RATE/ ACRE         ACRES         BID ITEM         QUANTITY         UNIT           150         1.5         Temporary Fertilizer (16-20-0)         225         LB           20         1.5         Temporary Seed (Canada Wildrye)         30         LB           45         1.5         Temporary Seed (Grain Oats)         68         LB           45         1.5         Temporary Seed (Sterile Wheatgrass)         68         LB           Soil Erosion Mix         LB           Erosion Control (Class I, Type Y)         SQ YD           Erosion Control (Class 2, Type Y)         SQ YD           Sediment Removal (Set Price)         I CU YD           Synthetic Sediment Barrier         LF           Temporary Berm (Set Price)         I LF           Temporary Ditch Check (Rock)         CU YD           Temporary Inlet Sediment Barrier         EACH		SUMI	MΔRY	OF S	SEEDING / EROSION CONTROL C	)  ANTITIFS	
SL/CH   CLT   SL/CH   SL/CH					Telebrite / Enterior continue e	T	<del></del>
CLT   SL/CH   CLT   SL/CH     150   1.5   Temporary Fertilizer   (16-20-0)   225   LB     20   1.5   Temporary Seed (Canada Wildrye)   30   LB     45   1.5   Temporary Seed (Grain Oats)   68   LB     45   1.5   Temporary Seed (Sterlie Wheatgrass)   68   LB     SoliErosion Mix   LB     Erosion Control (Class I, Type Y)   SQ YD     Erosion Control (Class 2, Type Y)   SQ YD     Sediment Removal (Set Price)   I CU YD     Synthetic Sediment Barrier   LF     Temporary Berm (Set Price)   I LF     Temporary Ditch Check (Rock)   CU YD     Temporary Inlet Sediment Barrier   EACH     Temporary Sediment Basin   CU YD     Temporary Sediment Basin   CU YD     Temporary Stream Crossing   EACH     Each   Biodegradable Log (9°)   LF     Biodegradable Log (2°)   LF     Biodegradable Log (2°)   LF     Biodegradable Log (2°)   LF     Geotextile (Erosion Control)   SQ YD     SWPPP Design † LUMP SUM LS     SWPPP Inspection † 15   EACH     900 lbs / acre   Mulching Surry   LB     2 tons / acre   Mulching Surry   LB     Control   Control     Control   Control	P.L.S. RAT	E/ ACRE	ACF	RES	BID ITEM	OLIANITITY	LIMIT
20	CLT	SL/CH	CLT	SL/CH	DID TIEW	QUANTITI	
20	150		1.5		Temporary Fertilizer (16-20-0)	225	LB
1.5	20		1.5		Temporary Seed (Canada Wildrye)		LB
1.5	45		1.5		Temporary Seed (Grain Oats)	68	LB
SoilErosion Mix	45				Temporary Seed (Sterile Wheatgrass)	68	LB
Erosion Control(Class 2, Type Y)   SQ YD							LB
Erosion Control(Class 2, Type Y)   SQ YD					Erosion Control(Class I, Type Y)		SQ YD
Sediment Removal (Set Price)   I CU YD							
Synthetic Sediment Barrier						1	
Temporary Ditch Check (Rock)					Synthetic Sediment Barrier		1
Temporary Inlet Sediment Barrier					Temporary Berm (Set Price)	1	LF
Temporary Sediment Basin					Temporary Ditch Check (Rock)		CU YD
Temporary Slope Drain					Temporary Inlet Sediment Barrier		EACH
Temporary Stream Crossing   EACH					Temporary Sediment Basin		CU YD
Biodegradable Log (9")   LF					Temporary Slope Drain		LF
Biodegradable Log (12")					Temporary Stream Crossing		EACH
Biodegradable Log (20")					Biodegradable Log (9")		LF
Biodegradable Log (20")					Biodegradable Log (12")		LF
Filter Sock (8")   250   LF					Biodegradable Log (20")		LF
Geotextile (Erosion Control)   SQ YD					<u> </u>	250	LF
Silt Fence  SWPPP Design †  SWPPP Inspection †  SWPPP Inspection †  Water Pollution Control Manager †  900 lbs / acre Mulch Tacking Slurry  Mulching  O.5  TON					Geotextile (Erosion Control)		SQ YD
SWPPP Inspection † 15 EACH Water Pollution Control Manager † 25 EACH 900 lbs / acre Mulch Tacking Slurry LB 2 tons / acre Mulching 0.5 TON							
SWPPP Inspection † 15 EACH Water Pollution Control Manager † 25 EACH 900 lbs / acre Mulch Tacking Slurry LB 2 tons / acre Mulching 0.5 TON					SWPPP Design +	LUMP SUM	LS
Water Pollution Control Manager †25EACH900 lbs / acreMulch Tacking SlurryLB2 tons / acreMulching0.5TON					·		EACH
900 lbs / acre Mulch Tacking Slurry LB 2 tons / acre Mulching 0.5							_
2 tons / acre	900 lbs	/ acre			Mulch Tacking Slurry		LB
	2 tons	/ acre				0.5	TON
					Water (Erosion Control) (Set Price)	1	MGAL

NOTE: Projects less than I acre shall be bid as "Seeding" by the lump sum. See Permanent Seeding Summary of Seeding Quantities sheet LA850 for further details.

Geotextile (Erosion Control) shall be removed prior to placement of permanent slope protection.

Regreen and Quick Guard are the approved sterile wheatgrass products.

† If the total disturbed area of the project, not just the seeding area, is I acre or more, then these bid items must be included.

\*\*\*\* List size of material.

The amount of mulch and mulch tacking slurry in the bid quantities is estimated. (Acres of Seeding X 1.5 X 2 Tons/Acre). The estimated quantity includes mulching associated with both temporary and permanent seeding operations. The total mulch and mulch tacking slurry required shall be determined in the field. The bid item for mulching and mulch tacking slurry shall be paid for according to the Standard Specifications.

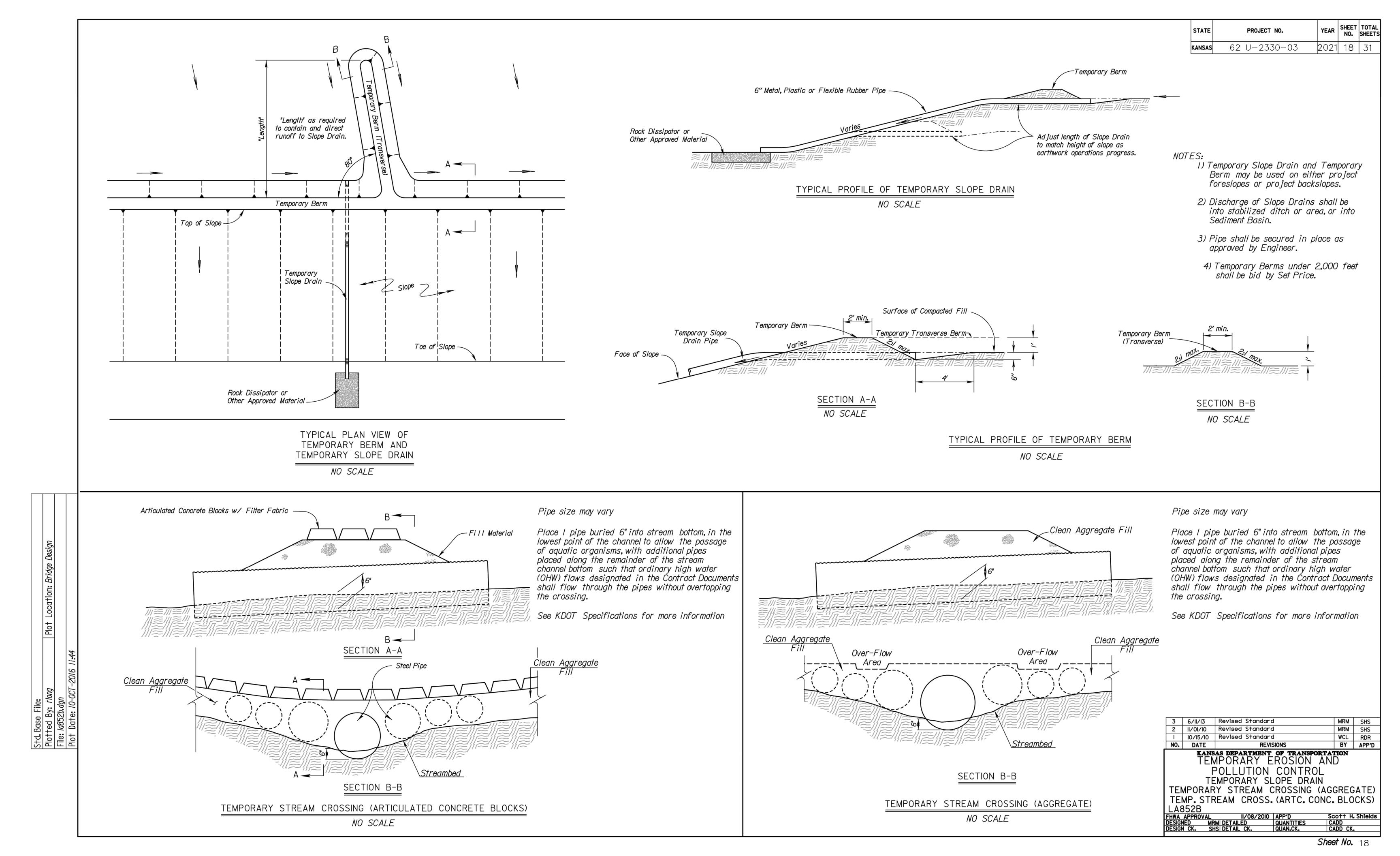
SC	IL EROSION MIX	
PLS RATE	NAME	QTY (lb)
	Total (lb)	

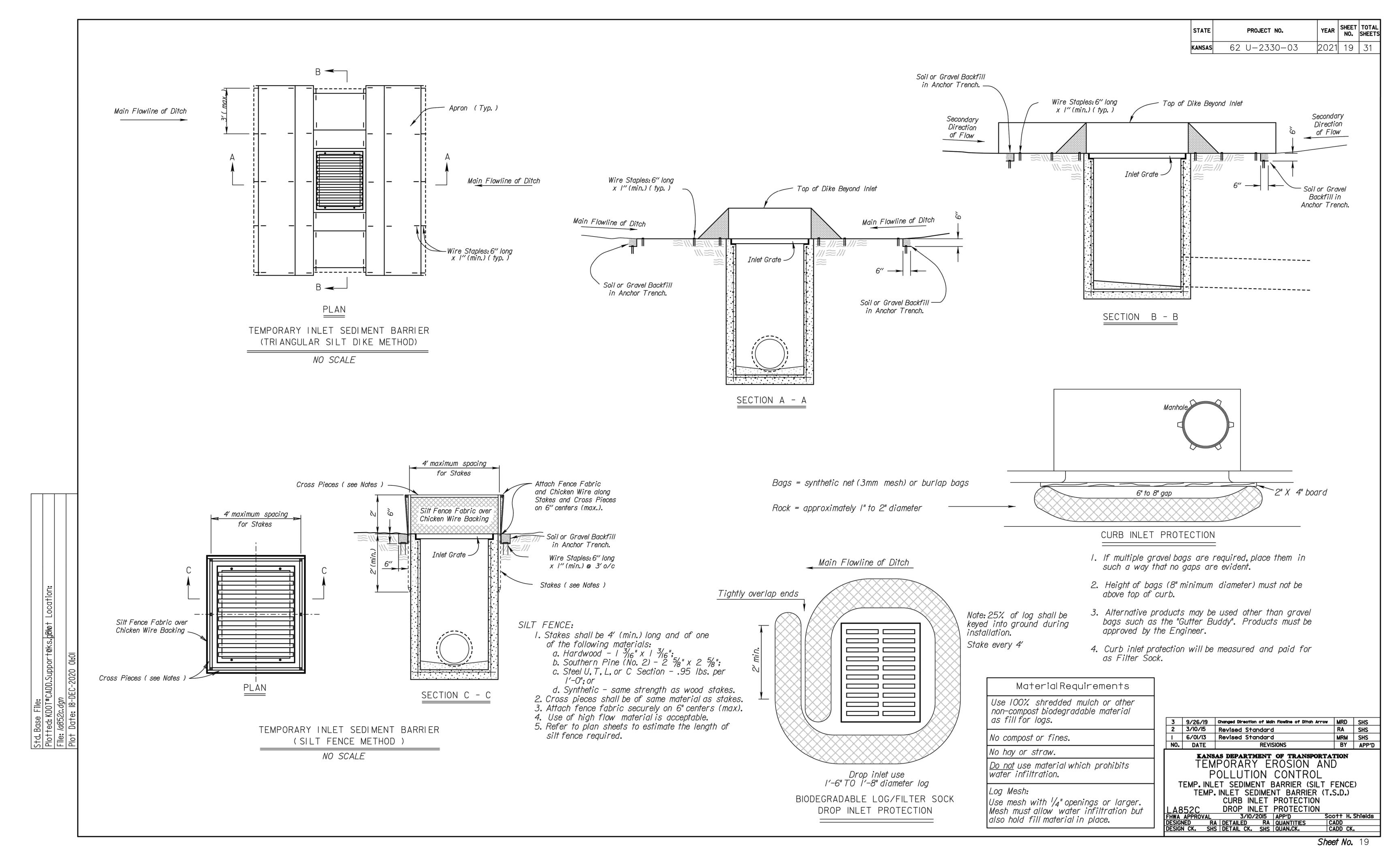
The Soil Erosion Mix is to be placed under the Class I and/or Class 2 erosion control material.

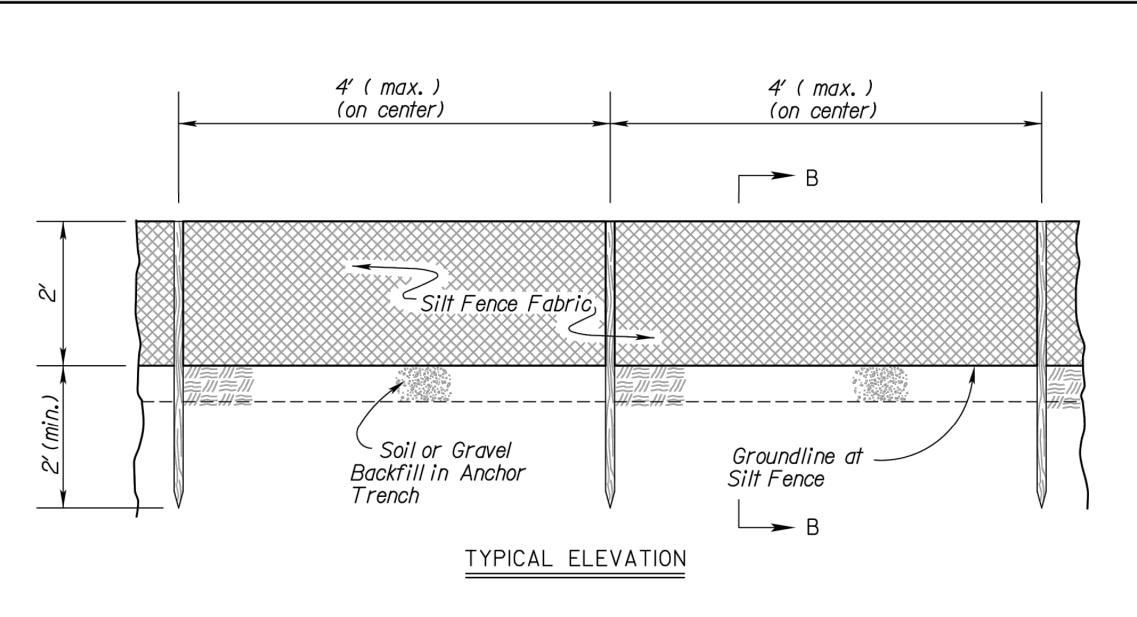
The Soil Erosion Mix consists of the Shoulder Area of the Permanent Seed Mix used on the project.

3	12/01/17	' F	Revised	Stan	ndard				MRD		SHS	]
2	6/01/17	' F	Revised	Stan	ndard				MRD		SHS	
	2/01/17	' F	Revised	Stan	ndard	l			MRD		SHS	]_
NO.	DATE				REVIS	IONS			BY	1	APP'D	ᇣ
	KANSAS DEPARTMENT OF TRANSPORTATION								This			
										m Certify		
LA8	52A											Conform
	<b>APPROV</b>			1/26/2		APP'D		<u>_</u> _		H. S	hields	ַבְּן
DESIGN		MRD	DETAILE		MRD	QUANTI			ADD			ļŌ
DESIGN	I CK.	SHS	DETAIL	CK.	SHS	QUAN.C	K	C	ADD C	Κ.		Į∢

CADconform Certify This File

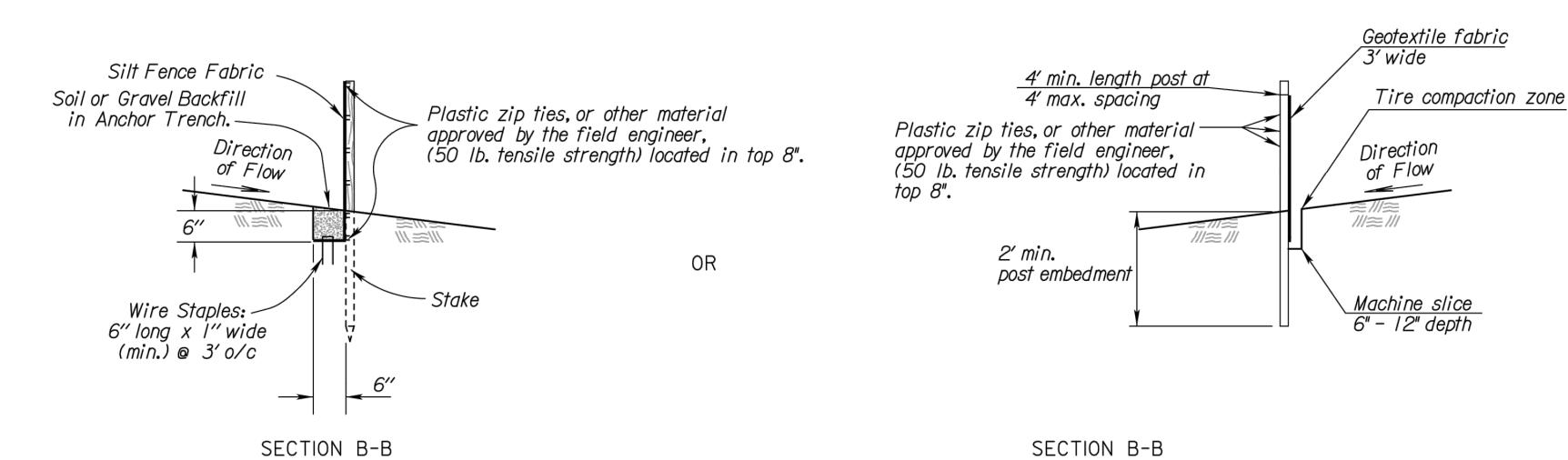






## SILT FENCE BARRIER

*NO SCALE* 



INSTALLATION NOTES

 STATE
 PROJECT NO.
 YEAR
 SHEET NO.
 TOTAL SHEETS

 KANSAS
 62 U-2330-03
 2021
 20
 31

#### SILT FENCE:

- I. Stakes shall be 4' (min.) long and of one of the following materials:
  - a. Hardwood  $1\frac{3}{16}$ " x  $1\frac{3}{16}$ ";
- b. Southern Pine (No. 2) 2 5/8" x 2 5/8";
- c. Steel U, T, L, or C Section .95 lbs. per I'-O"; or
- d. Synthetic same strength as wood stakes.
- 2. Attach fence fabric with 3 zip ties within the top 8" of the fence Alternate attachment methods may be approved by the Engineer on a performance basis.
- 3. Use of high flow material is acceptable.
- 4. Refer to plan sheets to estimate the length of silt fence required.

#### BIODEGRADABLE LOG OR FILTER SOCK

- 1. Place biodegradable logs or filter sock tightly together minimum overlap of 18".
- 2. Wood stakes shall be 2" x 2" (nom.).
- 3. Refer to plan sheets to estimate length of biodegradable log and filter sock required.
- 4. Each log or sock (except compost filter socks) should be keyed into the ground at a minimum of 25% of its height. Compost filter socks should be placed on smooth prepared ground with no gaps between the sock and soil.
- 5. Length of stakes should be 2 times the height of the log at a minimum with minimum ground embedment equal to the height of the log / sock.

Biodearadable Loa or Filter Sock Slope Interruptions

Diodegi dadbie Log di Tittei Sock Stope Illiei Lapitoria										
PRODUCT										
		9" Sediment Log or 8" Filter Sock (ft)	12" Sediment Log or 12" Filter Sock (ft)	20" Sediment Log or 18" Filter Sock (ft)						
nt	≤4H:IV	40	60	80						
Gradient	3H:IV	30	<i>4</i> 5	60						
Slope (										
SI										

	BIODEGRADABLE LOG MATERIAL				
	LOW FLOW	HIGH FLOW			
9"	Straw/Compost	Excelsior / Wood Chips / Coconut Fiber			
12"	Straw/Compost	Excelsior / Wood Chips / Coconut Fiber			
18"-20"	Straw/Compost	Excelsior / Wood Chips / Coconut Fiber			

Deviations should be approved by the Field Engineer.

## 

-18″ ( min**.** ) diameter

Biodegradable Log Section

¥ ₹ SECTION A - A

OPTIONAL

1/4h —

1/4h

Direction of Flow

Direction of Flow

Downstream Apron
(Optional)

Alternative Staking (Optional)
ALT. DETAIL

Stakes (typ.)

Stakes (typ.)

A

TYPICAL ELEVATION

BIODEGRADABLE LOG SLOPE INTERRUPTIONS

OR Filter Sock

### GENERAL NOTES

- I) Slope interruptions shall be placed along contour lines, with a short section turned upgrade at each end of the barrier.
- 2) The maximum length of the slope interruptions shall not exceed 250 feet, and the barrier ends need to be staggered.
- 3) Interruptions damaged by Contractor's negligence, including improper maintenance or lack of maintenance, shall be repaired immediately by Contractor at no additional cost to KDOT.
- 4) Agricultural products, such as native prairie hay, used for mulching and erosion control practices, excluding wood based mulch, shall meet the North American Weed Free Forage Standards.

NO.	DATE	REVISIONS	BY	APP
ı	6/01/13	Revised Standard	MRM	SHS
2	3/01/15	Revised Standard	RA	SHS
3	6/28/16	Revised Standard	RA	SHS

TEMPORARY EROSION AND POLLUTION CONTROL

SLOPE INTERRUPTIONS

BIODEGRADABLE LOG / SILT FENCE

LA852D

FHWA APPROVAL 9/14/2016 APP'D Scott H. Shields

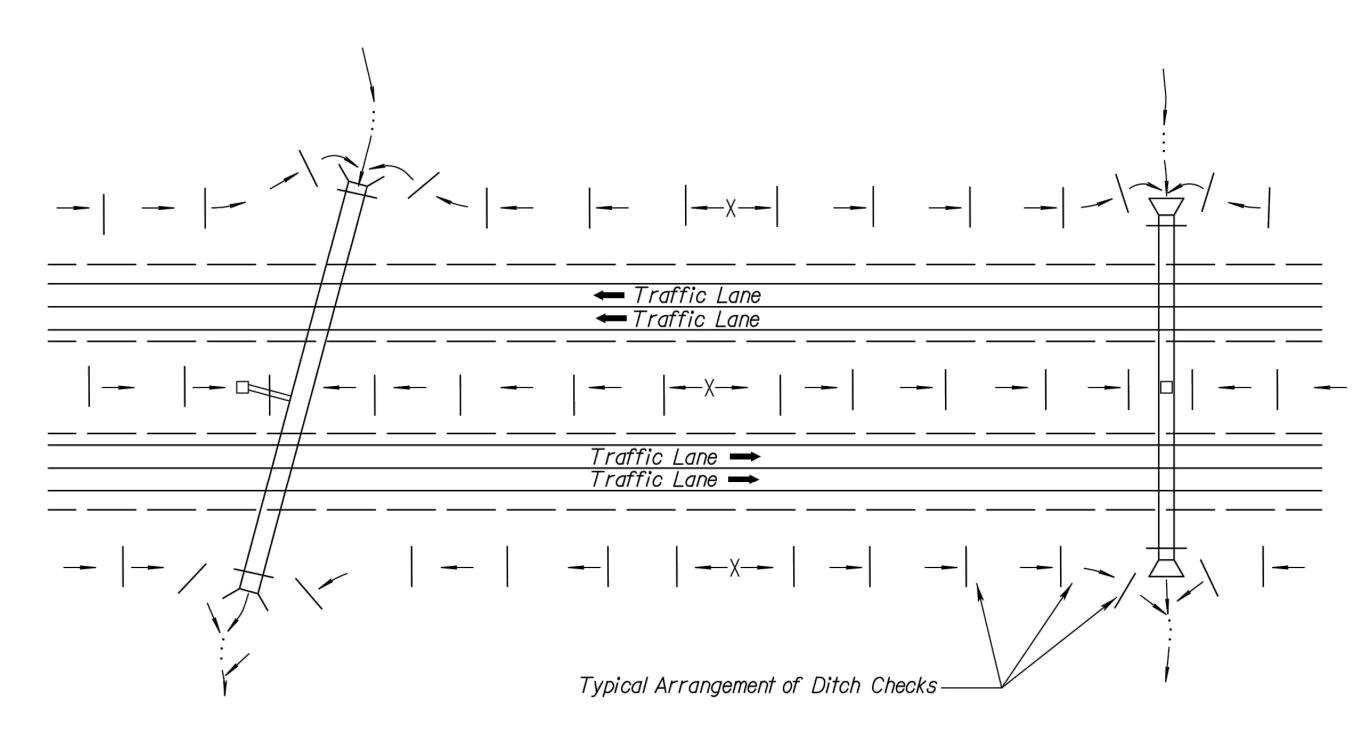
DESIGNED SHS DETAILED RA QUANTITIES CADD

DESIGN CK. SHS DETAIL CK. QUAN.CK. CADD CK.

CADconform Certify This File

Sheet No. 20

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	62 U-2330-03	2021	21	31



TYPICAL DITCH CHECK LAYOUT PLAN

NO SCALE

### GENERAL NOTES

- The choice of ditch check methods is at the option of the Contractor.
- 2) Use only rock checks in situations where the ditch slope is 6 percent or greater.
- 2) Ditch checks damaged by Contractor's negligence, including improper maintenance or lack of maintenance, shall be repaired by Contractor at no extra cost to KDOT.

20" BIOLOG			
CHECK :	SPACING		
DITCH Q SLOPE (%)	SPACING INTERVAL (FEET)		
1.0	<i>12</i> 5		
2.0	60		
3.0	40		
<b>4.</b> 0	30		
<b>5.</b> 0	25		
NOTE: Use this spacina for all			

NOTE: Use this spacing for all except Rock Ditch Checks.

18" FILTER SOCK			
CHECK	SPACING		
DITCH Q	SPACING		
SLOPE (%)	INTERVAL (FEET)		
1.0	110		
2.0	55		
3.0	35		
4.0	25		
<b>5.</b> 0	20		

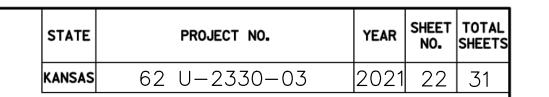
NOTE: Use this spacing for all except Rock Ditch Checks.

3	8/10/16	Revised Standard	RAA	SHS
2	6/28/16	Revised Standard	RAA	SHS
ı	6/01/13	Revised Standard	MRM	SHS
NO.	DATE	REVISIONS	BY	APP'D

TEMPORARY EROSION AND POLLUTION CONTROL

DITCH CHECKS

	5				
852E					
APPROVAL	9/14/2016	APP'D	Scott	H. Shie	elds
NED SHS	DETAILED RAA	QUANTITIES	CADD		RAA
N CK. SHS	DETAIL CK. SHS	QUAN.CK.	CADD	CK.	SHS



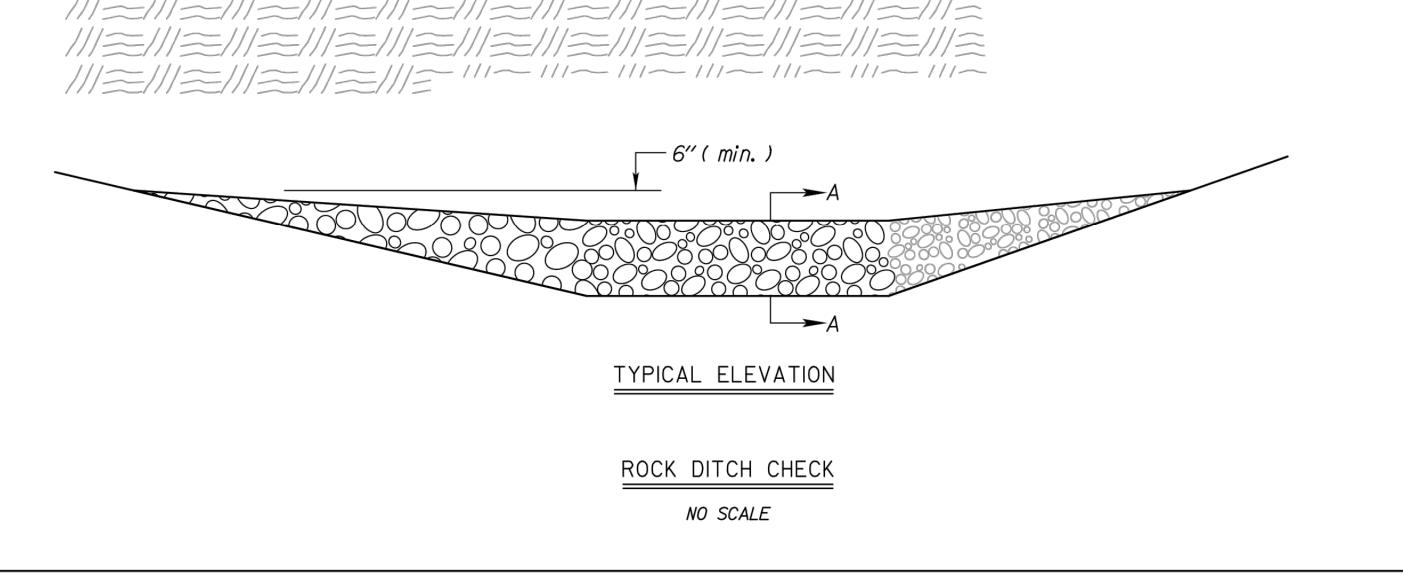
#### ROCK DITCH CHECK NOTES

- 1. Rock shall be clean aggregate, D50 = 6".
- 2. Place rock in such manner that water will flow over, not around ditch check.
- 3. Do not use rock ditch checks in clear zone.
- 4. Excavation: The ditch area shall be reshaped to fill any eroded areas. Prior to placement of the rock, the ditch shall be excavated to the dimensions of the Rock Ditch Check and to a minimum depth of 6" (150mm). After placement of the rock, backfill and compact any over excavated soil to ditch grade. This work shall be subsidiary to the bid item Temporary Ditch Check (Rock).
- 5. Aggregate excavated on site may be used as an alternate to the 6" rock, if approved by the Engineer.
- 6. The Engineer may approve the use of larger aggregates for the downstream portion of the check when conditions warrant their use.
- 7. When the use of larger rock is approved, the upstream portion of the check should be constructed of D50 = 6" or smaller.

TEMPORARY ROCK DITCH CHECK SPACING		
DITCH Q SLOPE (%)	SPACING INTERVAL (FEET)	
5.0	60	
6.0	50	
7 <b>.</b> 0	43	
<b>8.</b> 0	36	
9.0	33	
10.0	29	
NOTE: Use this spacing only for Rock Ditch Checks.		

BIODEGRADABLE LOG DITCH CHECK

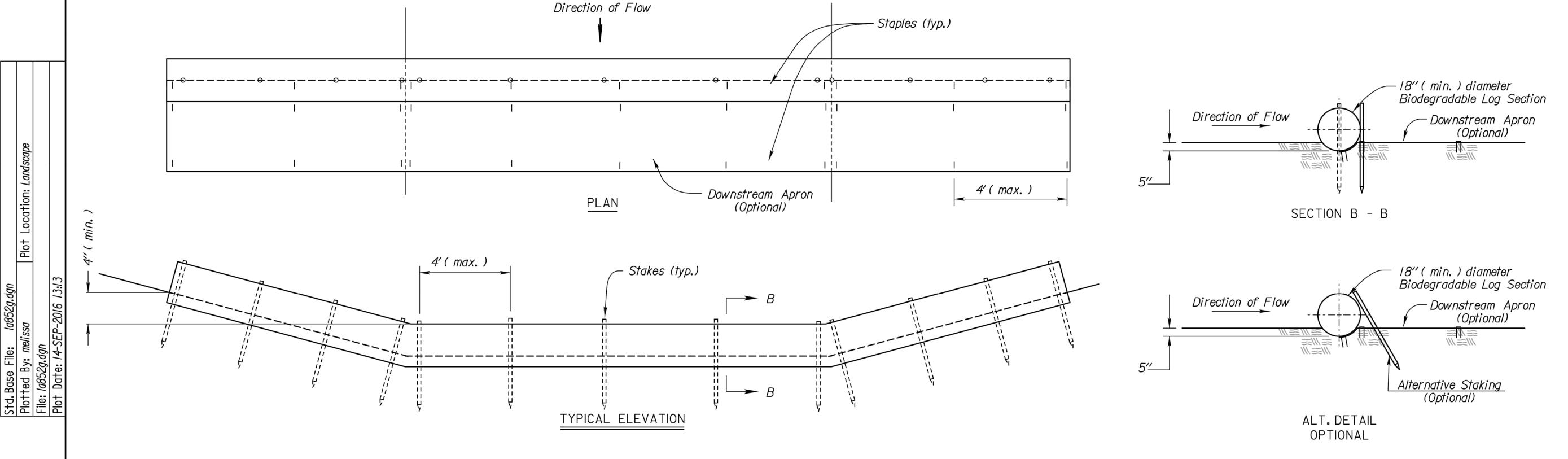
OR Filter Sock Ditch Check
NO SCALE



10'

///=///=///= SECTION A - A = ///=///=///=

Direction of Flow



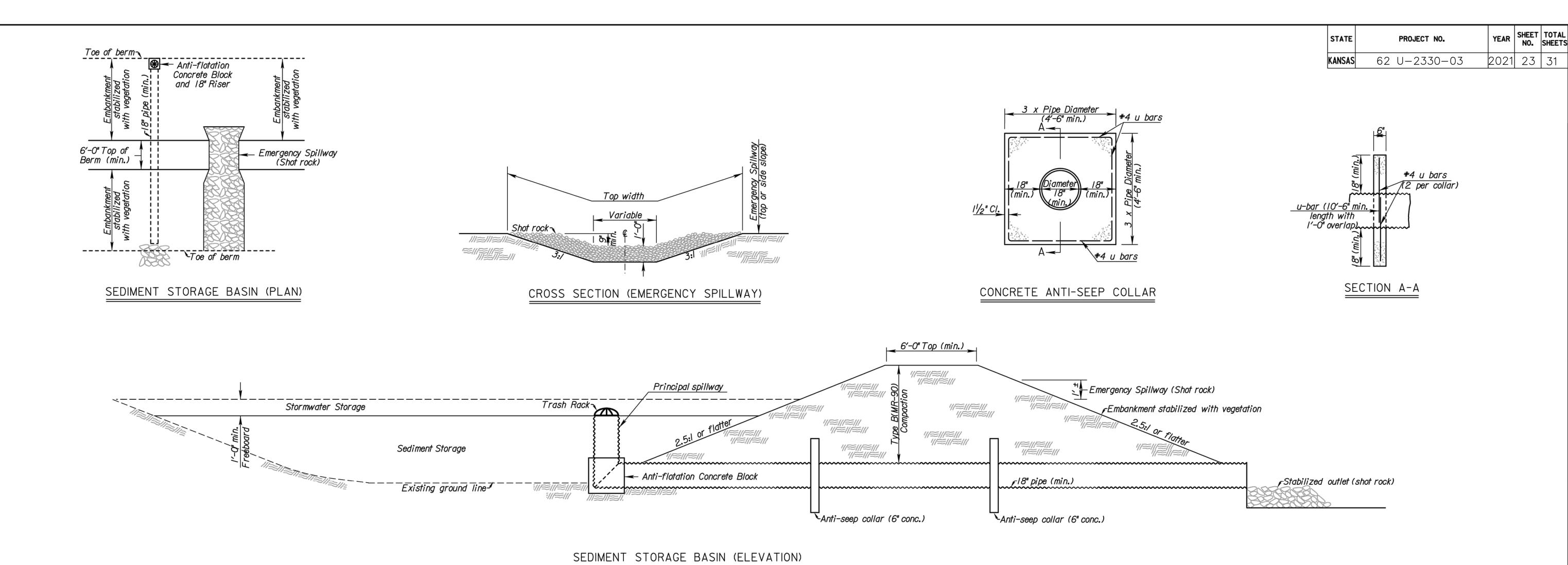
#### BIODEGRADABLE LOG DIKE NOTES

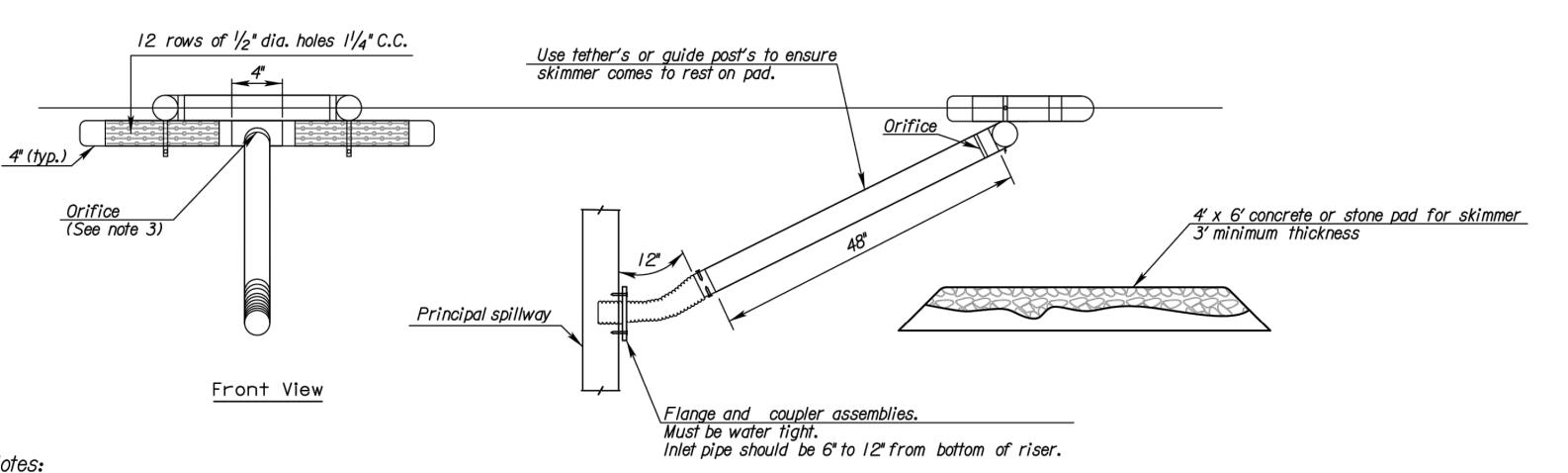
- I. Use as many biodegradable log sections as necessary to ensure water does not flow around end of ditch check.
- 2. Overlap sections a minimum of 18".
- 3. Stakes shall be wood or steel according to Section 2114 of the Standard Specifications. Length of stakes shall be a minimum of 2 x the diameter of the log.
- 4. Use Erosion Control (Class I) (Type C) as the downstream apron when required.
- 5. A downstream apron is required when directed by the Engineer. Apron material will be paid at the contract unit price.
- 6. Each log or sock (except compost filter socks) should be keyed into the ground at a minimum of 25% of its height. Compost filter socks should be placed on smooth prepared ground with no gaps between the sock and soil.

3	8/10/16	Revised Standard	RAA	SHS	
2	10/21/15	Revised Standard	RAA	SHS	
ı	9/15/14	Revised Standard	RAA	SHS	
NO.	DATE	REVISIONS	BY	APP'D	<u>e</u>
KANSAS DEPARTMENT OF TRANSPORTATION TEMPORARY EROSION AND POLLUTION CONTROL ROCK DITCH CHECKS BIODEGRADABLE LOG DITCH CHECKS				orm Certify This	

CADconform Certify This File

Sheet No. 22





Side View

SKIMMER DEWATERING DEVICE

I. All P.V.C. pipes are to be schedule 40.

2. HDPE flexible drain pipes is to be attached to the pond outlet structure with water-tight connections.

time to 2 to 5 days and approved by the engineer.

3. The orifice shall be sized of to provide drawdown

4. Other skimmer designs maybe used that dewaters

The design must be approved by the engineer.

from the surface at a controlled rate.

SEDIMENT STORAGE BASIN LOCATIONS
STATION TO STATION SIDE REQUIRED STORAGE CAPACITY

3
2 9/3/13 Added Skimmer Dewatering Device MRM SHS
1 7/17/13 Revised Standard MRM SHS
NO. DATE REVISIONS BY APP'D

KANSAS DEPARTMENT OF TRANSPORTATION

I) Temporary Sediment Basins shall be constructed at locations as directed by the Engineer or as approved in the SWPPP Schedule. All work and materials

necessary, including but not limited to, the fill material, compaction, drainage pipes, aggregates and all other incidentals necessary to construct the basin, shall be paid as "Temporary Sediment Basin".

2) Lengths and top dimensions shall be determined in the field by the Engineer.

3) Skimmer dewatering device required and must be used reguardless the size

of the drainage area.

TEMPORARY EROSION AND POLLUTION CONTROL

SEDIMENT STORAGE BASIN

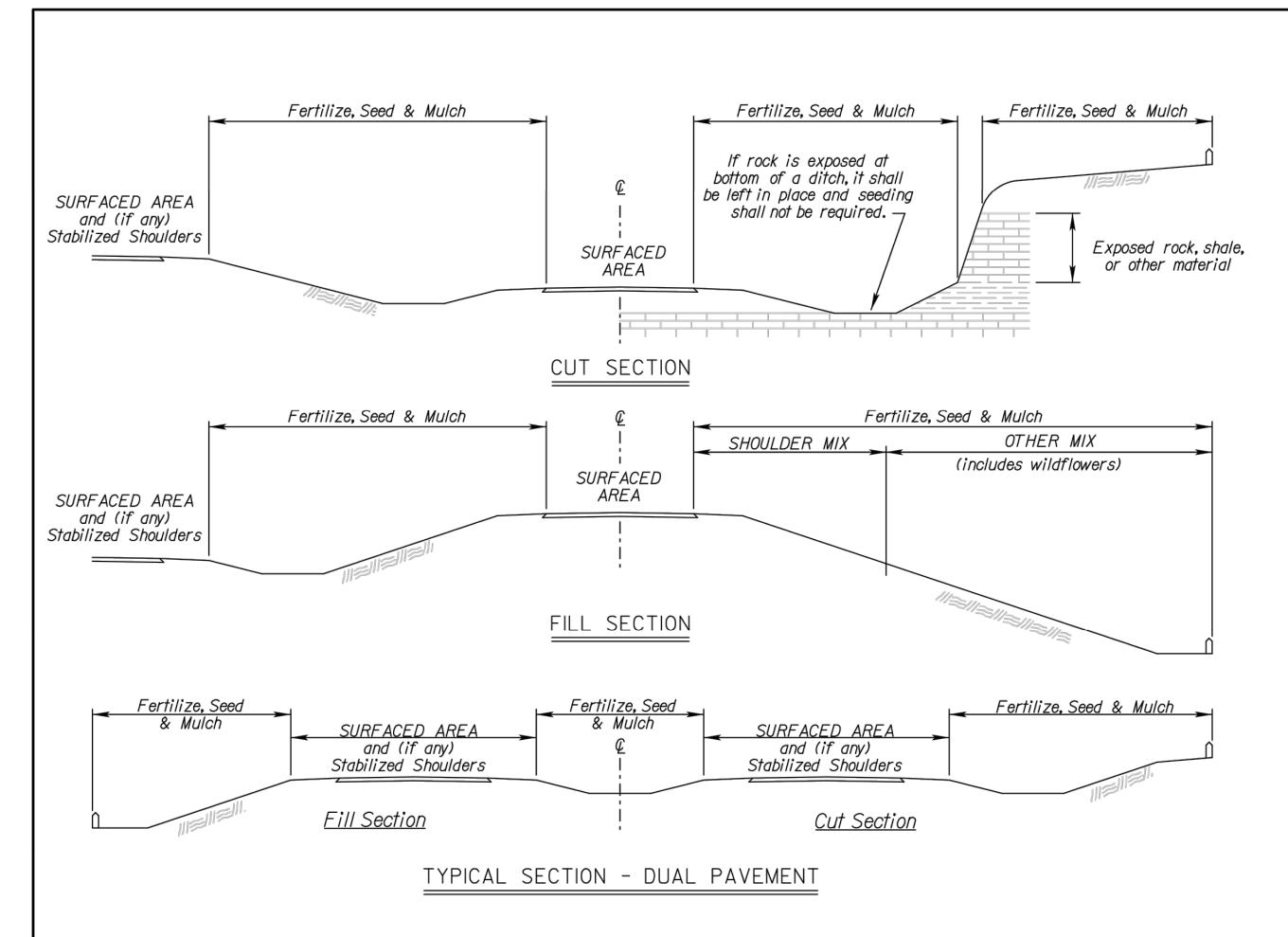
LA852H

FHWA APPROVAL 09/24/2013 APP'D Scott H. Shield

DESIGNED BB DETAILED BB QUANTITIES CADD B

DESIGN CK. SHS DETAIL CK. SHS QUAN.CK. CADD CK. SH

Sheet No. 23



QTY (Ib)

NATIVE WILDFLOWER MIX

Butterfly Milkweed
Common Milkweed

Black Eyed Susan

Blanket Flower

False Sunflower

Lance-Leaf Coreopsis

Pinnate Prairie Coneflower

Upright Prairie Coneflower

Common Evening Primrose

Total(lb)

Maximilian Sunflower

New England Aster

Plains Coreopsis
Purple Coneflower

Dames Rocket Lemon Mint

Pitcher Sage Wild Bergamot

Hoary Verbena

Illinois Bundleflower

Purple Prairie Clover

Showy Partridge Pea

White Prairie Clover

Roundhead Lespedeza

INAME

PLS RATE

0.3

0.3

0.5

0.5

0.2

0.1

0.2

0.3

0.3

0.3

0.2

I**.**O

0.8

0.3

3.0

0.2

10.3

NATIVE	E WILDFLOWER M	IX 2
PLS RATE	NAME	QTY (lb)
0.3	Butterfly Milkweed	
0.3	Black Eyed Susan	
0.5	Black Sampson Coneflower	
I <b>.</b> O	Blanket Flower	
0.2	Maximilian Sunflower	
0.2	Plains Coreopsis	
0.2	Upright Prairie Coneflower	
0.2	Western Yarrow	
0.3	Lemon Mint	
0.4	Pitcher Sage	
I <b>.</b> 5	Illinois Bundleflower	
0.2	Common Evening Primrose	
I <b>.</b> O	Blue Wild Indigo	
0.4	Leadplant	
0.4	Purple Prairie Clover	
0.3	White Prairie Clover	
7.4	Total (lb)	

Package and deliver the wildflower seed separately from the grass seed mix. Package and deliver the Tall Drop Seed separately from the grass seed and the wildflower mix. Place the grass seed (except Tall Drop Seed) in the large seed box and drill (cover) seed \( \frac{1}{8}\) - \( \frac{1}{4}\). Place the wildflower seed in a separate seed box and drill (cover) seed \( \frac{1}{16}\) maximum. Place the Tall Drop Seed in a separate (third) seed box and place the seed (using the seed drill) on the soil surface.

OPTION: Broadcast Tall Drop Seed on the soil surface.

GRASS & WILDFLOWE	ER SEEDING SEASONS
COOL SEASON GRASSES	WARM SEASON GRASSES & WILDFLOWERS

COOL SEASON GRASSES	WARM SEASON GRASSES & WILDFLOWERS
February 15 thru April 20 August 15 thru September 30	November 15 thru June I
SPECIES	SPECIES
Bluegrasses	Bermuda Grass
Brome Grasses	Big Bluestem
Canada Wildrye	Blue Grama
Fescues	Buffalo Grass
Prairie Junegrass	Indiangrass
Ryegrasses	Little Bluestem
Sterile Wheatgrass	Sand Bluestem
Tall Dropseed	Sand Dropseed
Western Wheatgrass	Sand Lovegrass
	Side Oats Grama
	Switchgrass
	Wildflower Mixes
1	

When the area to be seeded is lacre or more, if CoolSeason grasses are mixed with Warm Season grasses, seed the area during the Warm Season.

When the area to be seeded is less than lacre, seed the area any time of the year.

SODDING	SEASONS
COOL SEASON GRASSES	WARM SEASON GRASSES
March Ithru Aprill5 September Ithru November 15	May 15 thru September I
SPECIES	SPECIES
Bluegrass Sod	Buffalo Grass Sod
Fescue Sod	

If the soilis workable, the Engineer may allow placement of sod between November 15 and March I. If sod is placed during this time, maintain the sod until 20 days after the beginning of the spring sodding season.

STATE			SHEET NO.	TOTAL SHEETS	
KANSAS	62 U-2330-03	2021	24	31	

#### GENERAL NOTES

The entire disturbed area, excepting the paved or surfaced areas, steep rocky slopes and areas of undisturbed native sod or other desirable vegetation shall be fertilized (limed when required), seeded and mulched. Soil preparation shall conform to the Standard Specifications except as noted below.

All borrow areas shown on the plans are to be fertilized, seeded, and mulched. However, operation in borrow areas where crops are growing may be omitted when requested by the owner.

If temporary cover has provided stable slopes with no erosion, seed the permanent grasses into the existing cover. If there has been erosion that requires repair prior to seeding, then it may be necessary to regrade the area, resulting in bare ground.

FERTILIZER: A ratio and application rate that equals or exceeds the required minimum rate per acre of N, P<sub>2</sub> O<sub>5</sub>, K<sub>2</sub>O listed in Summary of Seeding Quantities will be acceptable.

MULCHING: Mulch shall be spread uniformly over all disturbed areas and punched in the soil, unless otherwise noted on the plans. The rate of application per acre, thickness in place, for the mulching material is generally as follows:

 $1\frac{3}{4}$  -  $2\frac{1}{4}$  Tons per Acre =  $1\frac{1}{2}$ " loose depth spread uniformly over acre.

Agricultural products, such as native prairie hay, used for mulching and erosion control practices, excluding wood based mulch, shall meet the North American Weed Free Forage Standards.

Other vegetative mulches are acceptable only with the Engineer's concurrence.

The above rate is a guide. It will be at the discretion of the Engineer to determine what rate is sufficient for adequate protection of newly seeded areas.

					SU	MMAR	Y UF	SEEDING QUANTITIES			
	RATE	.S. /ACRE	1	CIII DD		RES		BID ITEM	QUANTITY		
SHLDR	OTHER		-	SHLDR	OTHER						
250 45				1.5				SEED (FESCUE)(TALL TURF TYPE BLEND) FERTILIZER (15-30-15)	375	LBS	
45				1.5				FERTILIZER (15-30-15)	68	LBS	
										+	
										+	
										+	
									<u> </u>	+	
									<u> </u>	+	
										+	
										+	
								Mulching *			

CLIMANADY OF CEEDING OLIMITATIES

SHLDR = Seeded with the Shoulder Mix. Typically 15 feet for 2-lane roads and 30 feet for 4-lane roads. Includes outside roadsides, turfed portions of shoulders, and turfed portion of the median.

OTHER = Seeded with the "Other" Mix. Designated as all other turf areas, except the Shoulder. Usually includes a Native Wildflower Mix.

NOTE: Projects less than I acre shall be bid as "Seeding" by the lump sum. All disturbed areas shall be seeded, fertilized and mulched at the listed rate per acre. The acres are estimated.

Refer to the Standard Specifications, Division 900, Section 904 'Seeding', and Section 907 'Sodding', for the seeding and sodding seasons.

\* See LA852A for mulching quantity. The quantity of mulch is estimated (Acres of Seeding X 1.5 X 2 Tons/Acre). The total mulch required shall be determined in the field. The bid item for mulching shall be paid for according to the Standard Specifications.

NO.	DATE	REVISIONS	BY	APP'D
- 1	08/03/20	Revised Standard	MRD	SHS
2	11/25/20	MRD	ML	

PERMANENT SEEDING

SUMMARY OF SEEDING QUANTITIES

LA850

FHWA APPROVAL 05/06/2019 APP'D Mervin Lare

DESIGNED MRD DETAILED MRD QUANTITIES CADD

DESIGN CK. DETAIL CK. QUAN.CK. CADD CK.

Sheet No. 24

Plotted: KDOT#CADD.Support@ks.gBNot Location:
File: 1a850.dgn

2) Minimum Lane Width: Lane widths shall be a minimum of 11' (measured between centerlines of pavement markings) or as shown on the plans, or as directed by the engineer. A lane width less than 11' may require restricted roadway width signing.

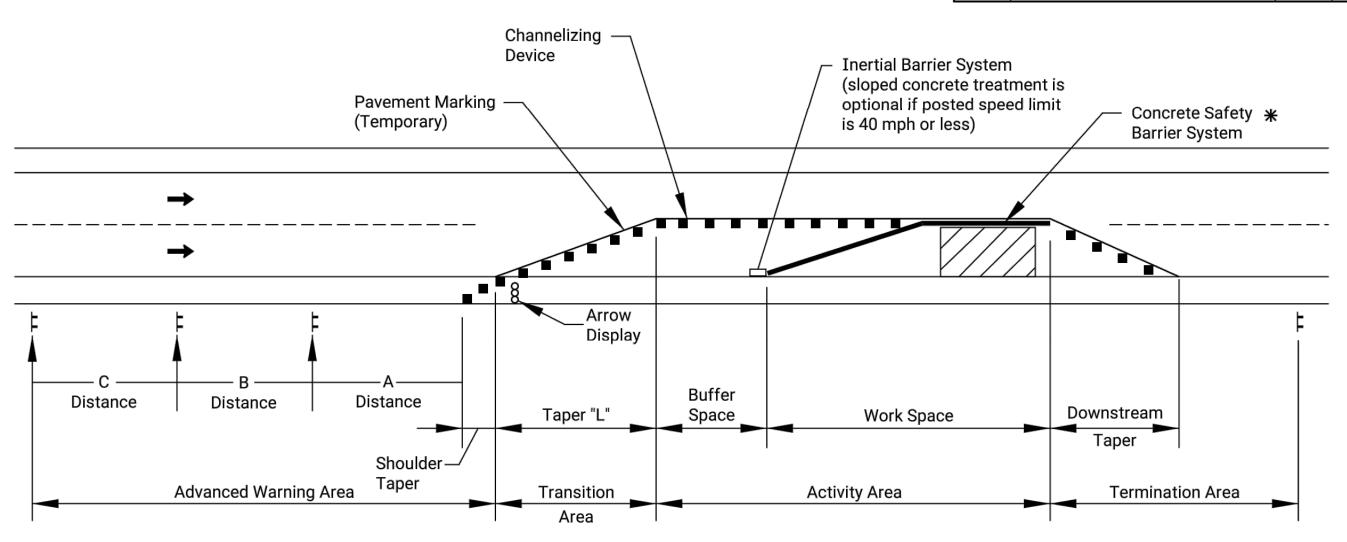
3) Consideration should be made to separate pedestrian and, if needed, bicycle movements from both work site activity and vehicular traffic. Unless a reasonable safe route that does not involve crossing the roadway can be provided, pedestrians should be appropriately directed with advance signing that encourages them to cross to the opposite side of the roadway. In urban and suburban areas with high vehicular traffic volumes, these signs should be placed at intersections (rather than midblock locations) so that pedestrians are not confronted with midblock work sites that will induce them to attempt skirting the work site or making a midblock crossing.

4) When existing pedestrian facilities are disrupted, closed, or relocated, the temporary facilities shall be detectable and include accessibility features consistent with the features present in the existing pedestrian facility.

5) When the driving surface open to traffic is milled or is a temporary surface made of loose material, or when directed by the engineer a W8-15 (Grooved Pavement) or W8-7 (Loose Gravel) sign shall be used on mainline approaches. This sign should be placed a "C" distance after the W20-1 (Road Work Ahead) sign. A W8-15p motorcycle plaque shall be used to supplement the W8-15 or W8-7 signs. All signs shall be displayed as long as the condition is present.

6) Alternative temporary rumble strip options may be available. Please contact the Temporary Traffic Control Unit for more information at 785-296-1179 or 785-296-1183.

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS	
KANSAS	62 U-2330-03	2021	25	31	



### TYPICAL WORK ZONE COMPONENTS

\* When concrete barrier system is used, portable channelizing devices are not needed along the tangent barrier section.

#### Minimum advance warning sign spacing (in feet):

SPEED (MPH) *	Α	В	С
URBAN (40 MPH OR LOWER)	100	100	100
URBAN (45 MPH OR HIGHER)	350	350	350
RURAL (55 MPH OR LOWER)	500	500	500
RURAL (60 MPH OR HIGHER)	750	750	750
EXPRESSWAY/FREEWAY	1000	1500	2640

\* Posted speed prior to work starting

The minimum spacing between signs shall be no less than 100', unless directed by the engineer.

The spacing between any signs may be increased beyond the minimum values in the table above as approved by the engineer in order to maximize visibility.

#### Taper Formulas:

L = WS for speeds of 45 MPH or more

 $L = WS^2/60$  for speeds of 40 MPH or less

Where: L = Minimum length of taper in feet

S = Numericial value of posted speed prior to work starting in MPH

W = Width in offset feet

Shifting Taper=1/2 L

#### Channelizer Placement:

(1) The spacing between devices in transition area (taper) should not exceed a distance in feet equal to 1/2 the posted speed limit in mph prior to work starting.

(2) The spacing between devices in the advanced warning area and the activity area should not exceed a distance in feet equal to two times the posted speed limit in mph prior to work starting.

(3) Channelizing devices shall be placed for optimum visibility, normally at right angles to the traffic flow.

(4) Place directional indicator barricades in series to direct traffic onto the new path. The arrow sign should not be visible to opposing traffic.

(5) Alternating diagonal orange and white striping must slope downward in the direction traffic is expected to pass.

#### **Buffer Space**

SPEED (MPH) *	20	25	30	35	40	45	50	55	60	65	70	75
LENGTH (ft)	115	155	200	250	305	360	425	495	570	645	730	820

#### \* Posted speed prior to work starting

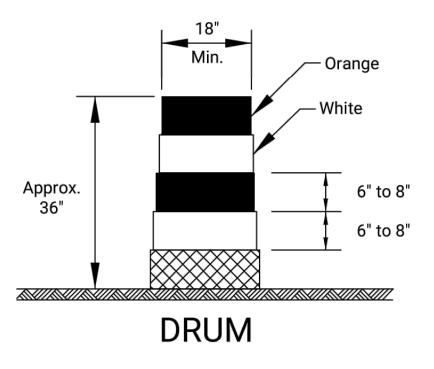
Neither work activity nor storage of equipment, vehicles, or material should occur in the buffer space. When a protection vehicle is placed in advance of the work space, only the space upstream of the vehicle constitutes the buffer space.

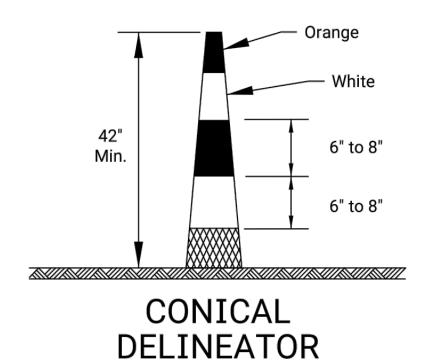
If temporary concrete safety barrier system is used to separate approaching traffic from the work space, the barrier system shall be considered part of the activity area. A full lane width should be available throughout the length of the buffer space. See typical work zone components above.

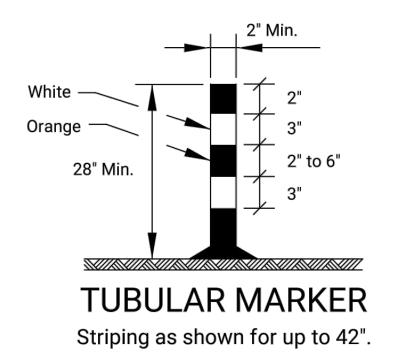
2	03/13/18	W8-15p usage changed to Shall	R.W.B.	E.G.K.
1	08/18/15	Channelizer spacing info	R.W.B.	K.E.
NO.	DATE	REVISIONS	BY	APP'D

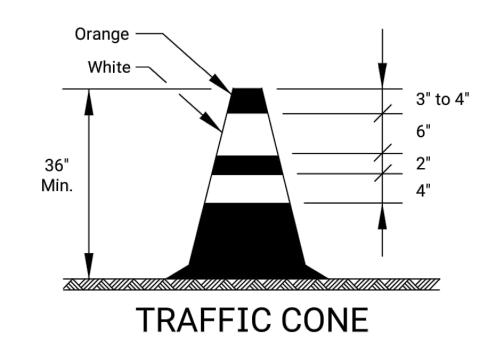
TRAFFIC CONTROL **GENERAL NOTES** 

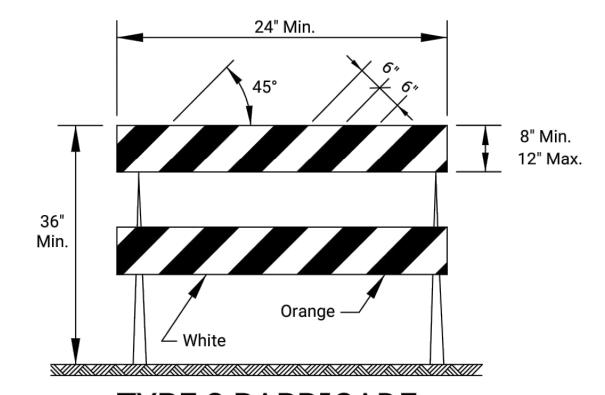
TE700 03/13/18 APP'D Eric Kocher
R.W.B QUANTITIES HWA APPROVAL B.A.H. DETAILED DETAIL CK. TRACED TRACE CK.

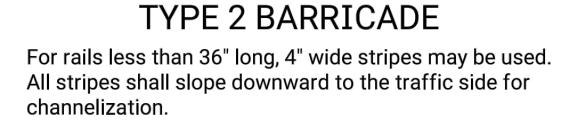


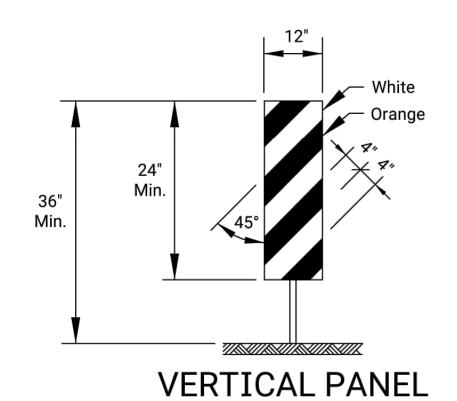




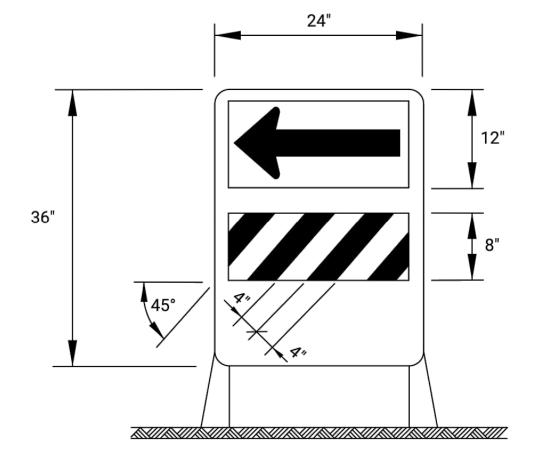






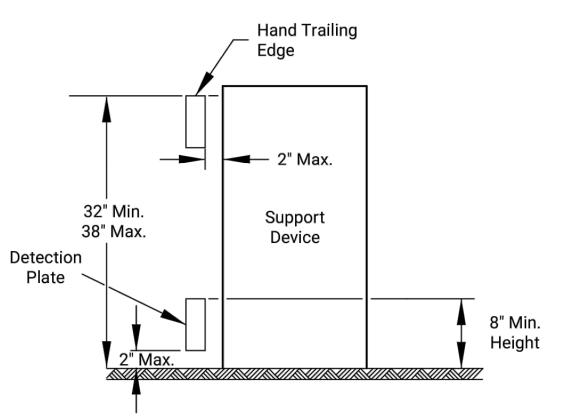


The stripes shall slope downward to the traffic side for channelization.



## DIRECTION INDICATOR BARRICADE

The stripes shall slope downward in the direction traffic is to pass. The direction indicator barricade shall be used in series to direct the motorist into the intended lane of travel.

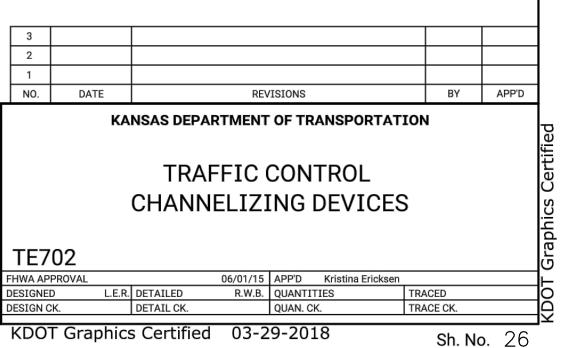


## PEDESTRIAN CHANNELIZER

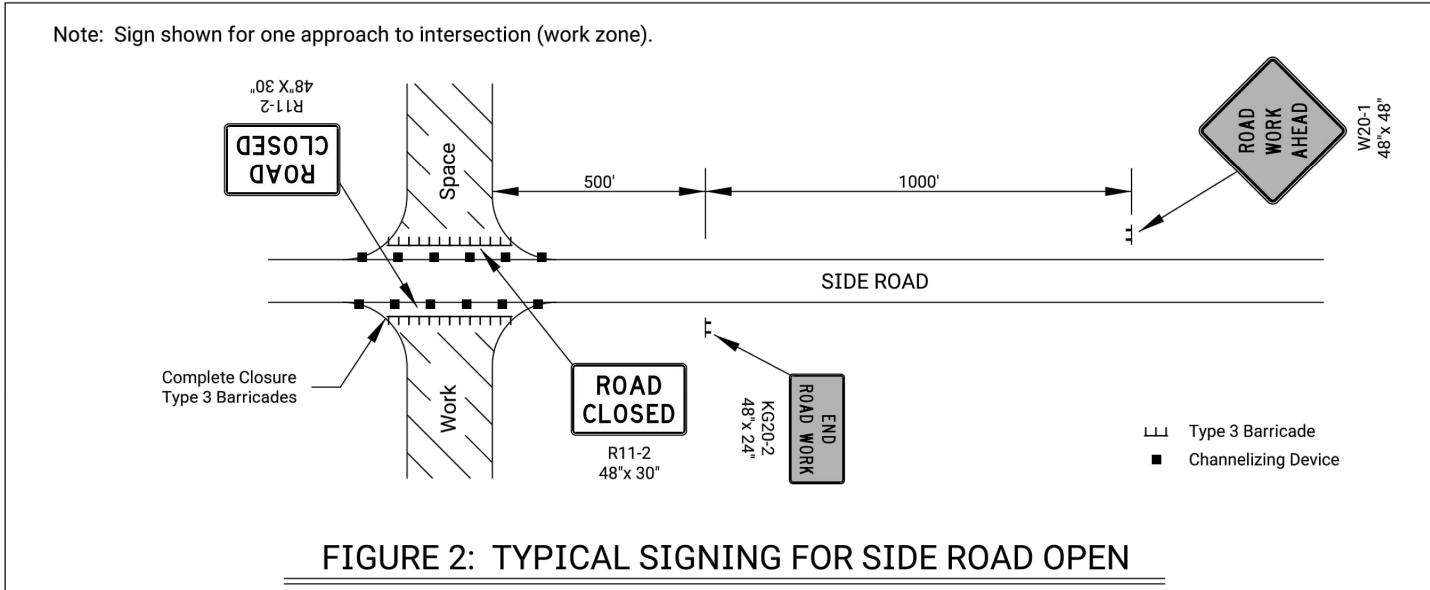
- 1. Support device shall not project beyond the detection plate into the pathway.
- 2. Hand trailing edges and detection plates are optional for continuous walls.
- 3. Interconnect pedestrian channelizers to prevent displacement and to provide continuous guidance through or around work.
- 4. Alternate pathways shall be firm, stable, and slip resistant.
- 5. Treat height differentials > 1/2" in the surfaces of alternate
- paths with a firm, stable, and slip resistant temporary ramp having a slope of 12:1 or flatter and having a width equal to the alternate path.
- 6. Use alternating orange/white on interconnected devices.

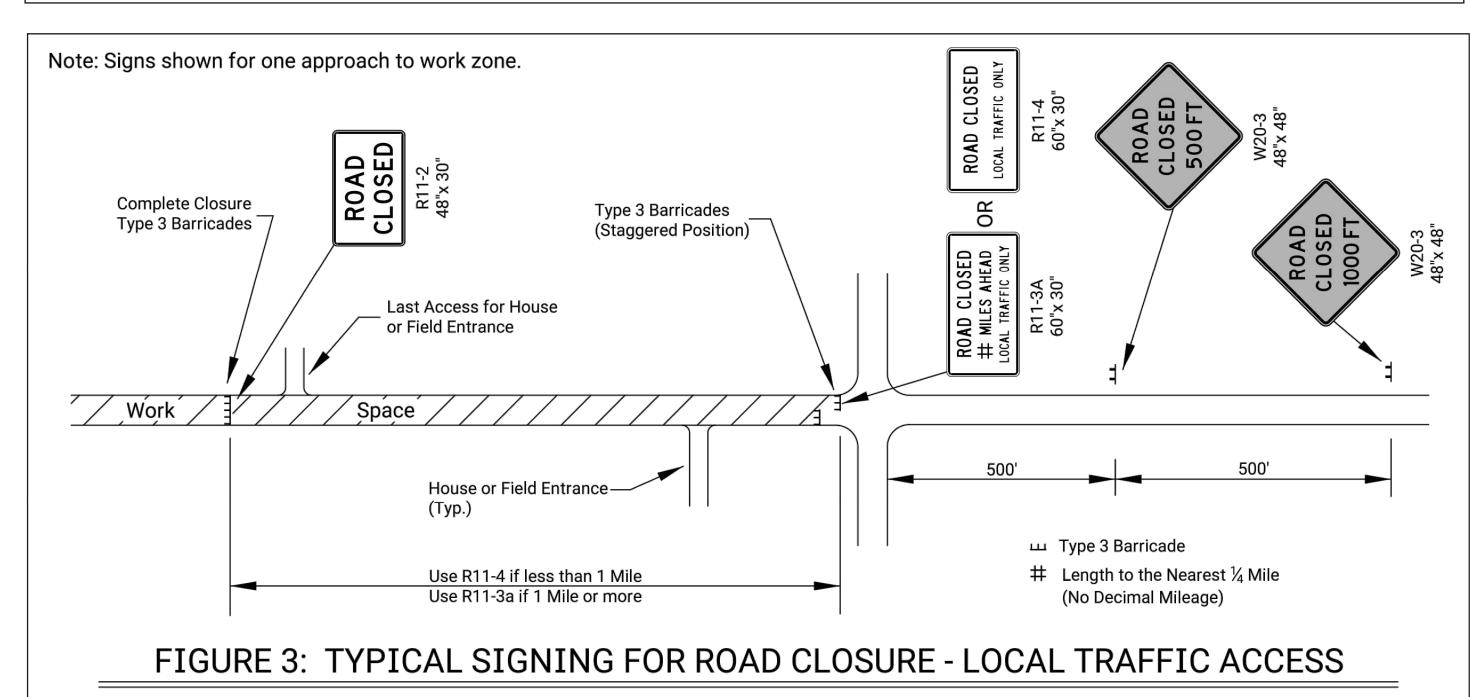
Item	Location	්	\$20,880 Show	Viver softy Van	"gents	Pers.	\$00) Head #	0000	Toes Toes	Soles Soles	
Portable											
	Drums	Yes	Yes	Yes	Yes	Yes	(1)	Yes	Yes	Yes	
	Conical Delineators	Yes	Yes	Yes	Yes	Yes	(1)	Yes	Yes	Yes	
	Vertical Panels	(2)	(2)	(2)	(2)	(2)	(1,2)	Yes	(2)	(2)	
	Direction Indicator Barricade	No	No	No	Yes	No	No	No	No	No	
	Type 2 Barricade	(2)	(2)	(2)	(2)	No	No	Yes	No	No	
	Traffic Cones	No	No	(4)	(4)	(4)	No	(4)	(4)	(4)	
Fixed											
	Tubular Markers	(3)	(3)	(3)	No	(3)	Yes	No	Yes	Yes	
	Vertical Panels	(3)	(3)	(3)	(3)	(3)	(3)	Yes	(2,3)	(2)	

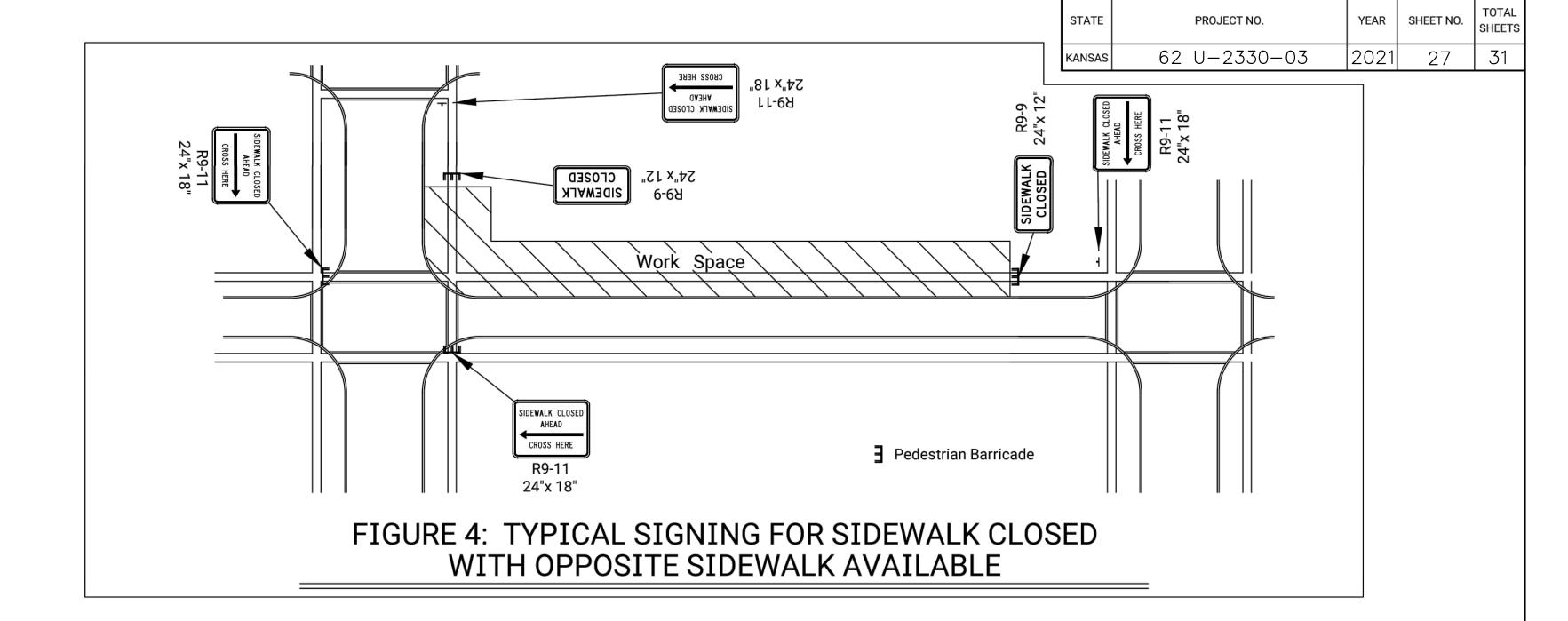
- (1) Not allowed on centerline delineation along freeways or expressways.
- (2) The stripes shall slope downward to the traffic side for channelization.
- (3) May be used upon the approval of the engineer.
- (4) Daytime operations only.

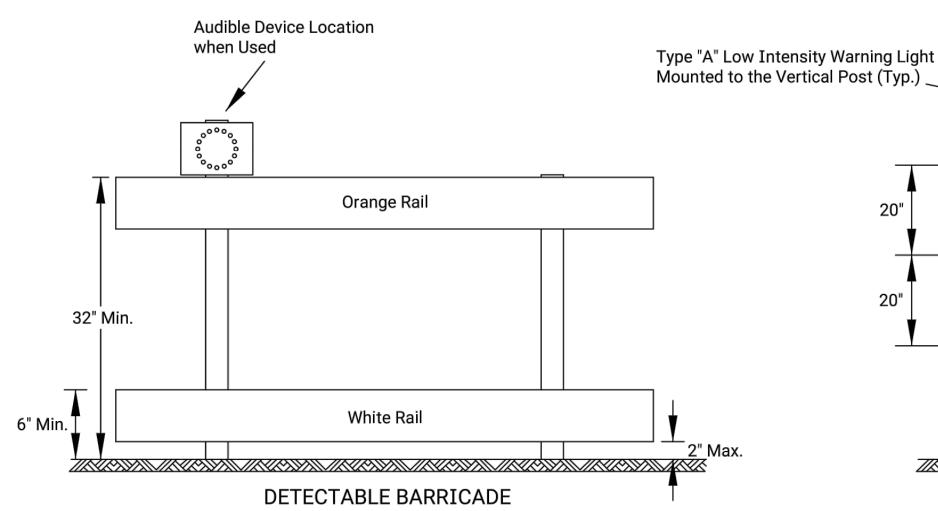


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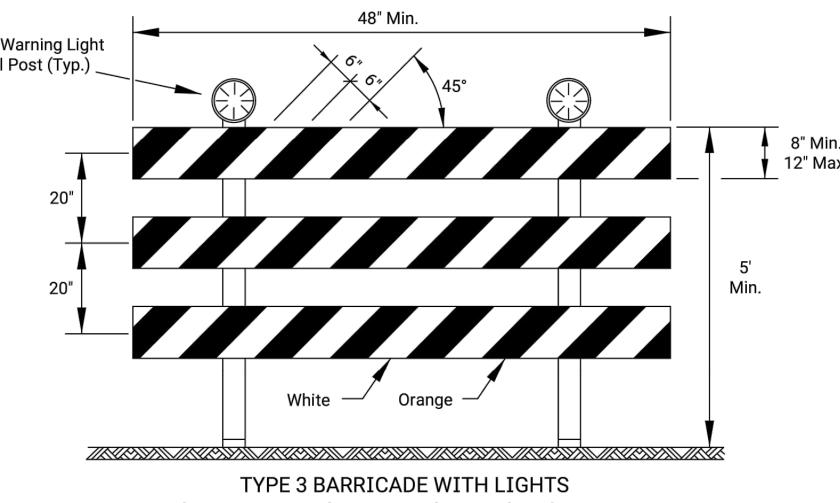








- 1. Support device shall not project beyond the detection plate into the pathway.
- 2. Barricades shall be used to close the entire width of the pathway.
- 3. Do not use warning lights on pedestrian barricades.
- 4. Do not use warning lights on audible devices.



Approved signs mounted on Type 3 barricades should not cover more than 50% of the top two rails or 33% of the total area of the three rails.

When barricades are placed end-to-end or staggered, a Type "A" low intensity warning light shall be mounted to the vertical post near each outside corner of the end barricades.

#### ROAD CLOSED GENERAL NOTES

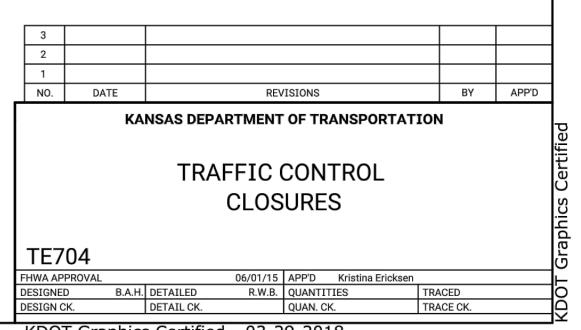
As shown in Figure 1, at the point where thru traffic must detour and local traffic can proceed to the location where the roadway is completely closed, the R11-3a (ROAD CLOSED # MILES AHEAD LOCAL TRAFFIC ONLY) or R11-4 (ROAD CLOSED LOCAL TRAFFIC ONLY or ROAD CLOSED TO THRU TRAFFIC) sign shall be used with Type 3 barricades (winged position), placed on the shoulders of roadway.

As shown in Figure 3, when local traffic must be allowed access into the work zone, Type 3 barricades shall be longitudinally staggered to maintain the appearance of a closed roadway. A second line of end-to-end Type 3 barricades shall be placed just beyond the last access point in the work zone, to completely close the roadway.

The R11-4 (ROAD CLOSED TO THRU TRAFFIC or ROAD CLOSED LOCAL TRAFFIC ONLY) sign shall be used when the distance to the point of complete closure of the roadway is less than 1 mile.

The R11-3a (ROAD CLOSED # MILES AHEAD LOCAL TRAFFIC ONLY) sign shall be used when the distance to the point of complete closure of the roadway is 1 mile or greater.

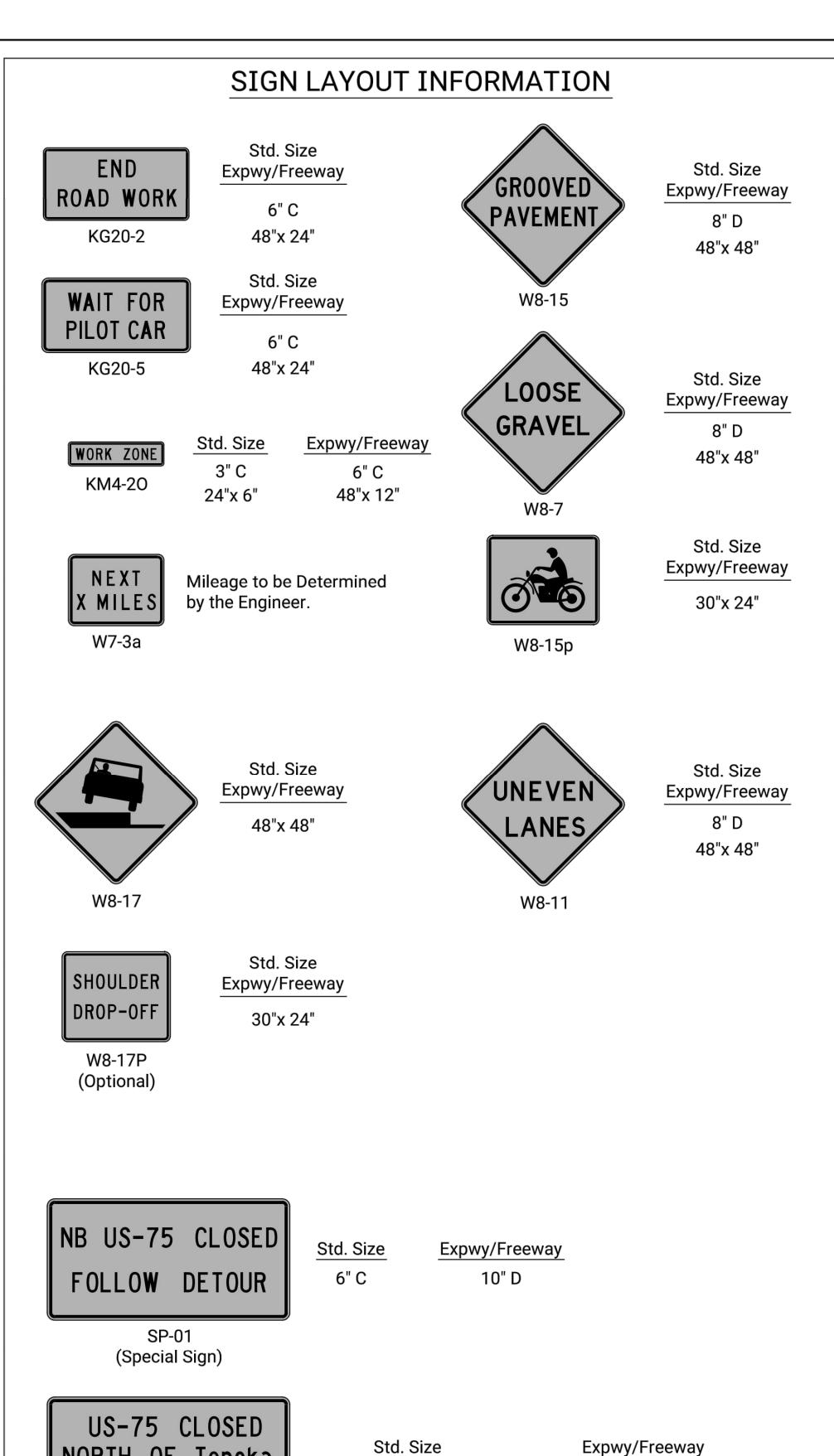
The words "BRIDGE OUT" (or BRIDGE CLOSED) may be substituted for the words "ROAD CLOSED" on the R11-3a or R11-4 sign where applicable.

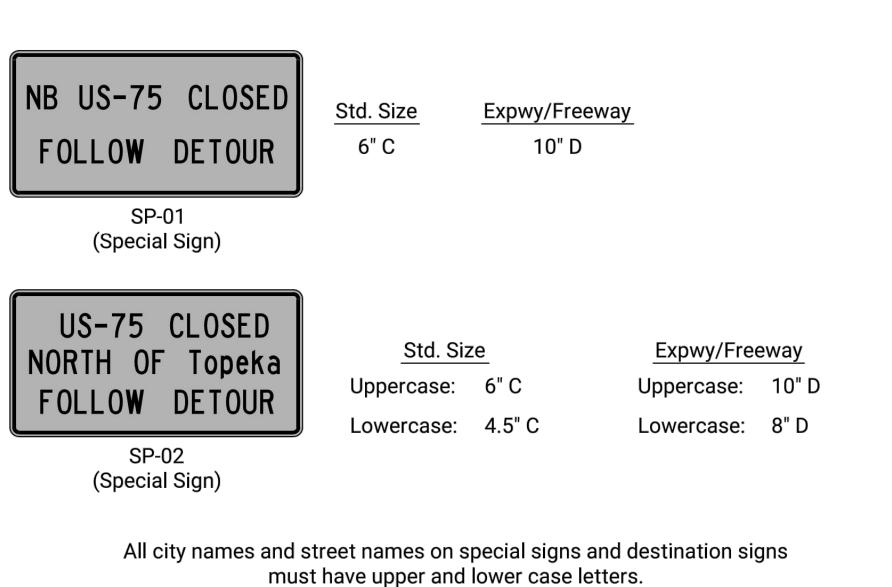


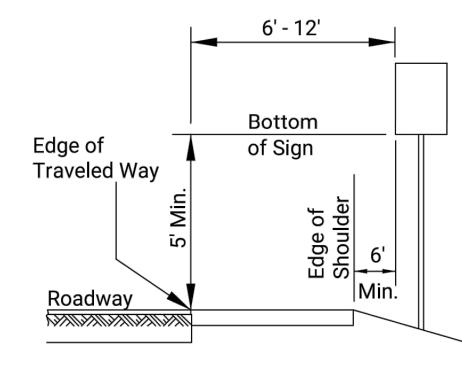
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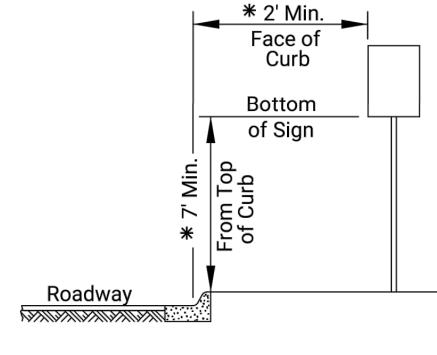






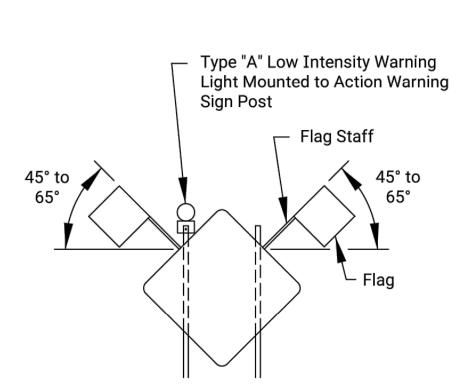
### **RURAL**

- 1) Ground-mounted signs shall be mounted at a minimum height of 5' measured from the bottom of sign to the near edge of the pavement.
- 2) Large signs having an area exceeding 50 square feet installed on multiple breakaway posts shall be mounted a minimum of 7' above the ground.
- 3) The height of the secondary sign mounted below another sign may be 4' measured from the bottom of the sign to the near edge of the pavement. Signs shall not overlap each other.



### **URBAN**

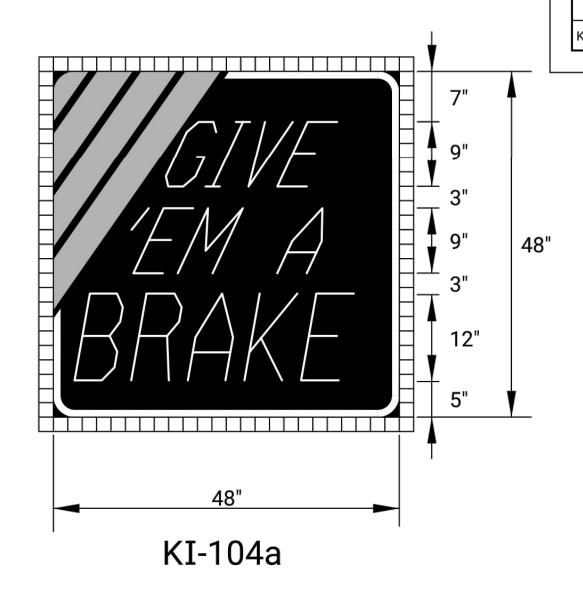
- 1) Signs shall be mounted at a minimum height of 7' measured from the bottom of sign to the near edge of the pavement.
- 2) Neither portable nor permanent sign supports should be located on sidewalks or areas designated for pedestrian or bicycle traffic.
- 3) Signs mounted lower than 7' should not project more than 4" into pedestrian facilities.
- 4) The height from of the secondary sign mounted below another sign may be 6' measured from the bottom of sign to the near edge of the pavement. Signs shall not overlap each other.
- 5) Large signs having an area exceeding 50 square feet installed on multiple breakaway posts shall be mounted a minimum of 7' above the ground.
- \* 6) Pedestrian detour signing shall be a minimum of 2' measured from the top of the pedestrian pathway to the bottom of the sign and shall not protrude into the walkway nor shall it project beyond the back of curb.



When the sign width is equal to or greater than 9', three or more wood posts may be used with a minimum of 4' between the centerline of each post. All signs less than 9' in width shall use a maximum of two wood

In the case of hitting rock when driving posts

- 1. Shift the sign location. Do not violate minimum sign spacing.
- 2. With the engineer's approval, use acceptable alternative sign stands.



Sign Number	GIVE EM A BRAKE
Width x Height	4'-0" x 4'-0"
Border Width	1.0"
Corner Radius	4.0"
Stripe Width	3.0"
Mounting	Ground
Background	Type: Non-Reflective
	Color: Black
Legend/Border	Type: Reflective
	Color: White
Legend Font	Dutch 801 Roman SWC 25 Degree Slant
Stripes	Type: Reflective
	Color: Orange

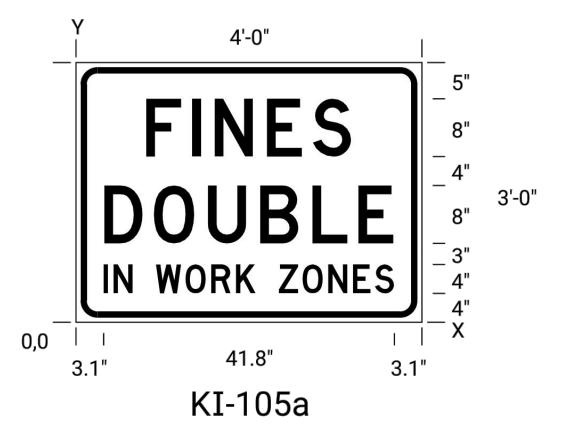
PROJECT NO.

62 U-2330-03

STATE

YEAR SHEET NO.

2021 28



Sign Number	FINES DOUBLE					
Width x Height	4'-0" x 3'-0"					
Border Width	0.9"					
Corner Radius	3.0"					
Mounting	Ground					
Background	Type: Reflective					
	Color: White					
Legend/Border	Type: Non-Reflective					
	Color: Black					

#### Dimensions in inches

Spacings are to start of next letter

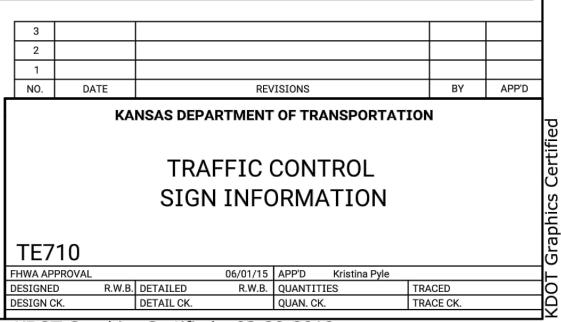
Y FONT						LE	TTE	ER S	PAC	CIN	GS					HT LEN
23.0	$\bowtie$	F	Ι	N	Ε	S	$\times$									8.0
D	9.7	6.4	3.2	7.3	6.4	5.4	9.7									28.6
11.0	$\bowtie$	D	0	U	В	L	Ε	$\supset$								8.0
D	3.9	6.9	7.5	7.3	7.3	6.4	4.9	3.9								40.3
4.0	$\boxtimes$	Ι	Ν	$\times$	W	0	R	K	$\times$	Z	0	N	Ε	S	$\times$	4.0
D	3.1	1.6	2.7	3.2	4.3	3.8	3.6	2.8	3.2	3.4	3.8	3.6	3.2	2.7	3.1	41.8

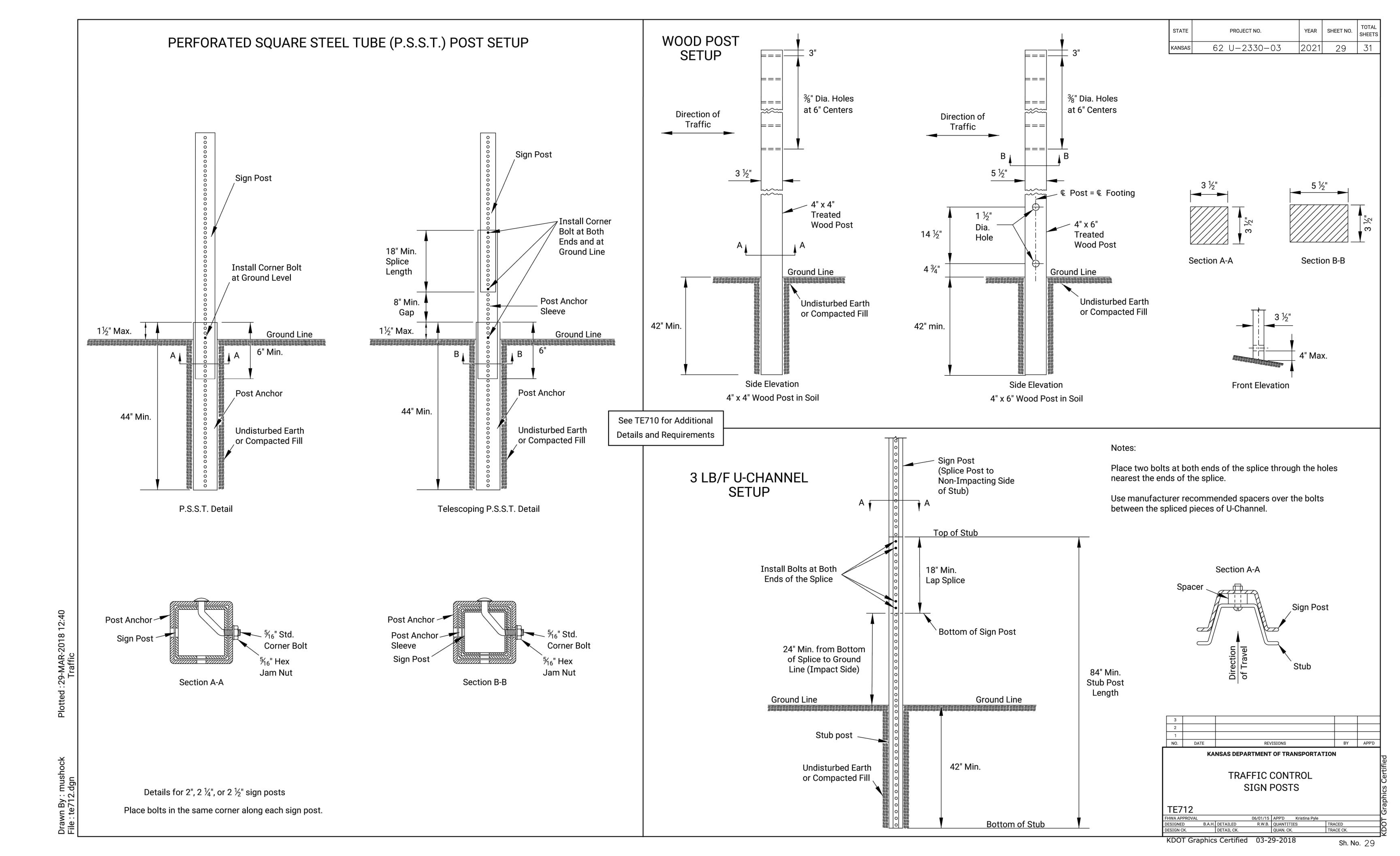
#### Notes:

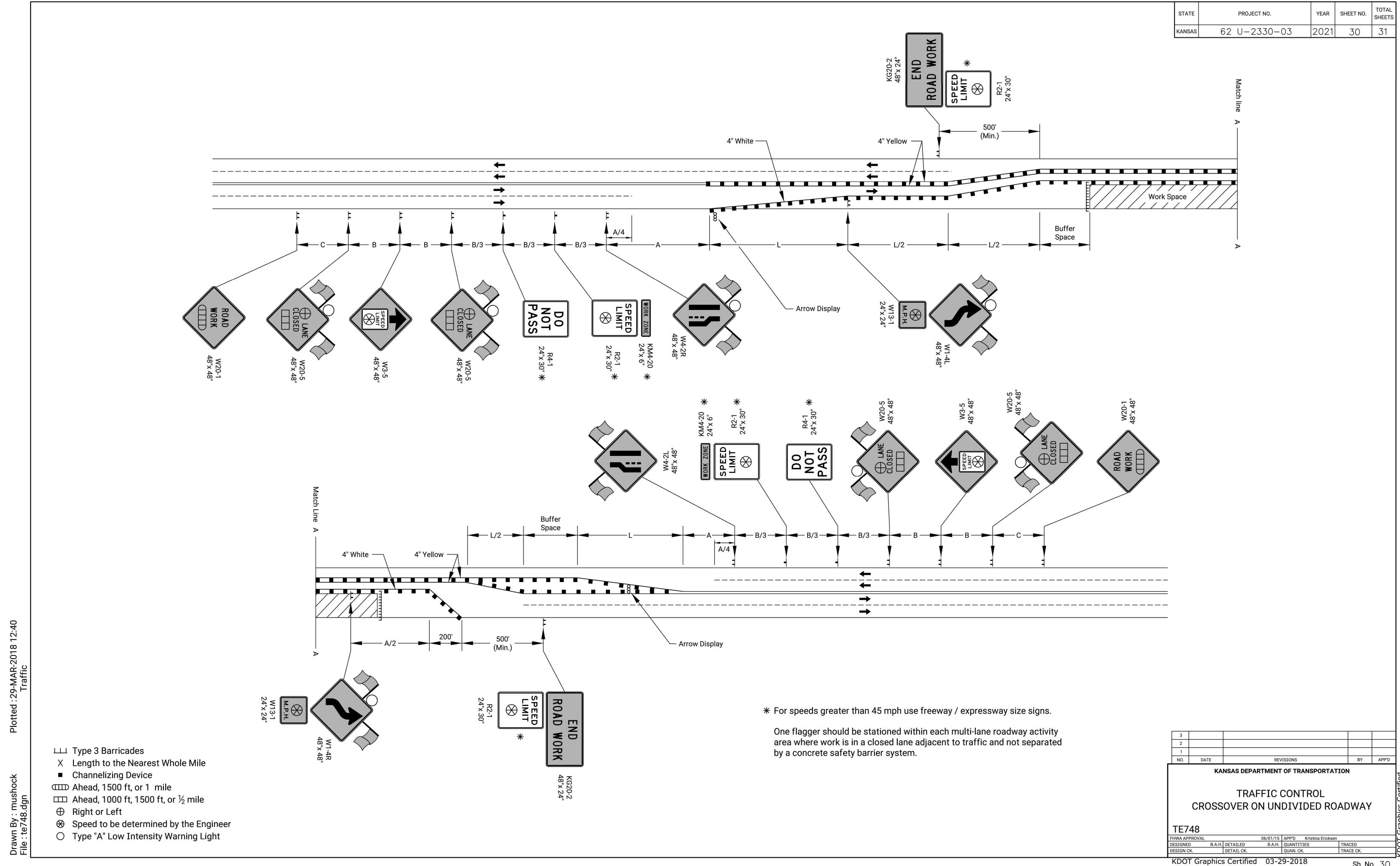
Typically, there are two sets of informational signs installed per project: one for each direction of traffic.

Install signs a minimum of 500' in advance of the road work ahead sign. The engineer may designate a more appropriate location if conditions dictate.

The informational signs are not to interfere with the traffic control signs for the project.







## SUMMARY OF TRAFFIC CONTROL DEVICES (EACH)

Work Zone Sign (Special)			
Sign No.	16.25 Sq.Ft. & Less	Less 16.26 Sq.Ft. & Over	

## SUMMARY OF TRAFFIC CONTROL DEVICES (EACH PER DAY)

\* Quantity most used on the project at any one time

Work Zone Signs *				
Sign No.	0-9.25	Size - Sq.Ft. 9.26-16.25	16.26 & Over	
W20-7	U-9.2J	2	10.20 & 0761	
R11-2		6		
R20-1		8		
KG20-2	10			
R9-9	8			
W20-1		2		
W20-5		4		
W3-5		2		
R4-1	2			
R2-1	4			
KM4-20	2			
W13-1	2			
W1 – 4L		2		
W1-4R		2		
W4-2L		2		
W4-2R		2		

Barricades *		Channelizing Devices *		
Type 3 (4' to 12')	Pedestrian	Fixed	Portable	Pedestrian
6	8		150	

Lighted Devices *	
Work Zone Warning Light (Type "A" Low Intensity)	
Work Zone Warning Light (Red Type "B" High Intensity)	
Arrow Display	2
Portable Changeable Message Sign	

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	62 U-2330-03	2021	31	31

Recapitulation of Quantities	S	
Item	Quantity	Unit
Work Zone Signs (0 to 9.25 Sq.Ft.)		Each Per Day
Work Zone Signs (9.26 to 16.25 Sq.Ft.)		Each Per Day
Work Zone Signs (16.26 Sq.Ft. & Over)		Each Per Day
Work Zone Barricades (Type 3 - 4' to 12')		Each Per Day
Work Zone Barricades (Pedestrian)		Each Per Day
Channelizer (Fixed)		Each Per Day
Channelizer (Portable)		Each Per Day
Channelizer (Pedestrian)		Each Per Day
Work Zone Warning Light (Type "A" Low Intensity)		Each Per Day
Work Zone Warning Light (Red Type "B" High Intensity)		Each Per Day
Arrow Display		Each Per Day
Portable Changeable Message Sign		Each Per Day
Pavement Marking (Temporary)		
4" Solid (Type I)		Sta./Line
4" Solid (Type II)		Sta./Line
4" Broken (8.0') (Type I)		Sta./Line
4" Broken (8.0') (Type II)		Sta./Line
4" Broken (3.0') (Type I)		Sta./Line
4" Broken (3.0') (Type II)		Sta./Line
4" Dotted Extension (Type I)		Sta./Line
4" Dotted Extension (Type II)		Sta./Line
Solid (Line Masking Tape)		Sta./Line
Broken (Line Masking Tape)		Sta./Line
Symbol (Type I)		Each
Symbol (Type II)		Each
Flexible Raised Pavement Marker (4" Broken (8.0'))		Sta./Line
Flexible Raised Pavement Marker (4" Broken (3.0'))		Sta./Line
Pavement Marking Removal		Lin. Ft.
Work Zone Sign (Special) (16.25 Sq. Ft. & Less)		Each
Work Zone Sign (Special) (16.26 Sq. Ft. & More)		Each
Rigid Raised Pavement Marker (Type I)		Each
Rigid Raised Pavement Marker (Type II)		Each
Traffic Signal Installation (Temporary)		Lump Sum
Traffic Control (Initial Set Up)		Lump Sum
1	Lump Sum	
Traffic Control	Lump Sum	Lump Sum
Flagger (Set Price)	ı I	Hour

TRAFFIC CONTROL SUMMARY OF DEVICES

RECAPITULATION OF QUANTITIES
TE795

FHWA APPROVAL 06/01/15 | APP'D Kristina Ericksen

FHWA APPROVAL

DESIGNED B.A.H. DETAILED R.W.B. QUANTITIES

DESIGN CK. DETAIL CK. QUAN. CK.

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